DATE: 2009/03/01 VER 1.2

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Specifications

Item			4 Channel, 120 fps(or 100fps)
Video	Input	Channel, Input Level	4 CH, Composite 1.0Vp-p, 75 Ohm
		Signal Format	NTSC/PAL(Auto detection)
	Output		1 CH Composite Output/15pin D-Sub VGA Output
Audio	Input / Output		4 Line In / 1 Line Out
Alarm	Sensor Input		4 (NC/NO Selectable)
	Alarm Output		1 (By Alarm, Motion, Video Loss)
Recording	Compression		Virtual H.264
	Multi-operation		TRIPLEX (Playback/Record/Network)
	Resolution	NTSC	120fps(352X240) / 30 fps(704X480)
		PAL	100fps(352X288) / 25 fps(704X576)
	Recording quality grade		NORMAL/HIGH/SUPER
	Recording Mode		Continuous / Schedule / Motion/ Sensor/ Manual
	Motion Detection		Motion detection setup by Grid
Display	Speed		Real Time Display(NTSC/PAL)
Playback	Search Mode		Event, Archive, Log, Time Line
Storage	Internal HDD		S-ATA (Up to 1TB)
	Backup	USB 2.0 flash stick	JPEG & AVI&DVR
		Network	Moving picture & Still Image
Serial port	Camera Control		1 RS-485
Network	Dynamic IP support		Yes
	Network Interface		10/100 base-T Ethernet (RJ-45)
Client S/W	Functions		Live, Search, Backup
General	Power Source		DC 12V 5A
	Unit Weight		3.5kg
	Dimension (W x H x D)		435(W) x 335(D) x 54(H)
	Operation Temperature		During operation: 5°C - 40°C During storage: -10°C - +50°C
	Operation Humidity		0 - 90%

Warnings

Installation and servicing should be performed by qualified and experienced personnel only.

DVR should always remain OFF during any installation process

Product Components

The package contains the main unit and its components as specified below. When you purchase the unit, please check to ensure the components specified below are included

DVR Set X1

Client Software CD X1

Remote Control X1

Battery1.5V (AAA x 2EA) X1

User Manual X1

Power Adaptor X1

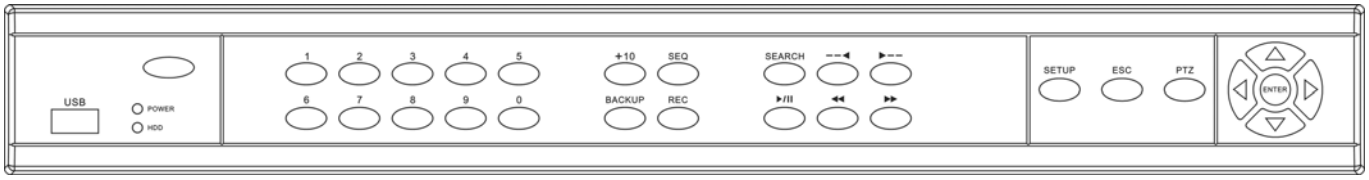
Power Cord X1

1. Features

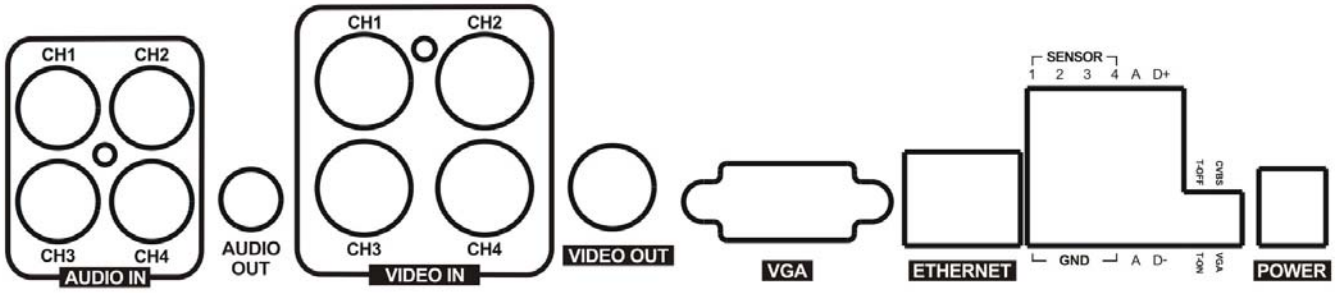
- 4 channels real-time live display and 4 channels simultaneous playback.
- Virtual H.264 - Unbeatable recording picture quality and compression ratio has been tuned for years. It best fits for minimizing recording space and fast networking streaming speed.
- TRIPLEX - Simultaneous Recording, Playback, and Networking
- NaFS (File System developed) - Designed & developed for preventing loss from recording data by any power failure.
- Multiplexing operation
- Reliability - Real Time Operating System and simplified hardware as well as watchdog timer ensure the reliability.
- Individual channel recording and playback with different frame rate.
- High-quality live and playback resolution.
- Multi-site management - Supported by CMS application.
- Network features - Remote Live, Playback, and Backup.
- Network via LAN, DHCP, DDNS,ADSL (Dynamic and Static IP address).
- User-friendly setup menu with graphic user interface.
- Easy to schedule a complicated weekly recording plan.
- The OSD icons on screen provide various helpful and well-explained information.
- Motion detection – Grid 15x12 motion zone per camera is provided.
- USB ports for JPEG, H.264 data backup and software upgrade using USB flash memory stick.
- Still image capture and review as JPEG format.
- Easy operating with the buttons on the front and the remote controller.
- User verification by password certification.
- Video loss detection.
- Backup - Still-images or AVI data into USB flash memory stick and Network.
- Multi-Languages -User can easily select language from Setup menu.

2. Hardware Overview

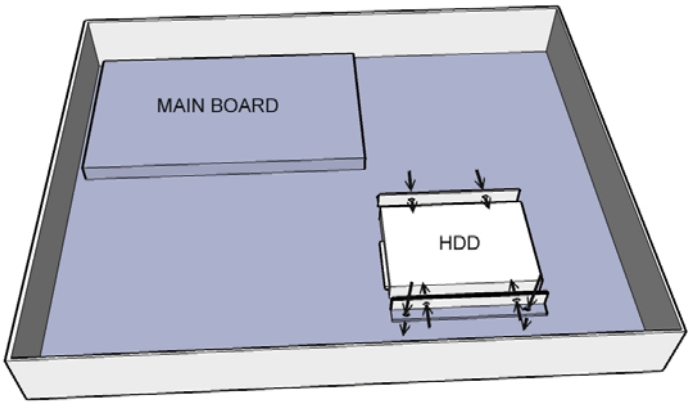
2-1 Hardware



USB PORT Front Panel



4ch DVR BASE



Please remove top cover of the DVR (show as picture above) and install one of the HDD below:

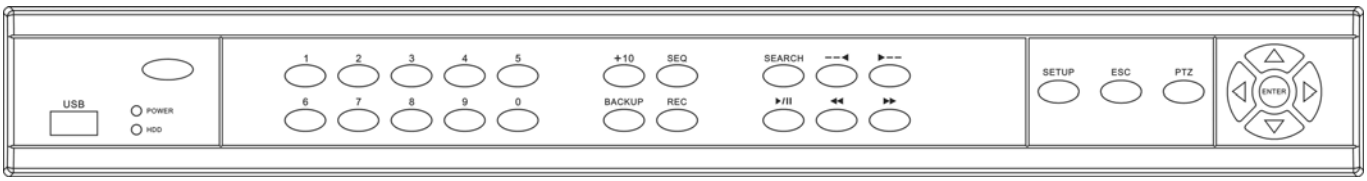
	Size	Buffer
HITACHI	160 GB~1TB	8 MB~16MB
MAXTOR	160 GB~300GB	2 MB~16MB
WesternDigital	200 GB~1TB	8 MB~16MB
Seagate	80GB~1TB	2MB~32MB

Compatible HDD List

IMPORTANT : DO NOT USE THE FOLLOWING HDD:

1. **MAXTOR 160GB (MODEL NUMBER: 6L160PO) HDD**
2. **WESTERN DIGITAL 320GB HDD**
3. **PLEASE REFER TO APPENDIX 2 FOR DETAIL HDD COMPATIBLE LIST.**

2-2. Front Panel



Name	Description
NUMBER(1~0)	Select channel with number button (1 ~4 ONLY)
SEQ	Auto sequencing of channels in full screen mode. (Toggle)
PTZ	Enter PTZ mode
SETUP	Enter SYSTEM SETUP menu.
SEARCH	Enter Search menu.-->Event search /Time line search /Log /Archive search
►/ ‖	Can be use as “Play” and “pause” function during playback
BACKUP	Archiving in live or playback mode. **Live mode**: Backup live picture only **Playback mode**: Backup picture and video
◄◄	Rewind the footage at 1x, 2x, and 4x speed in playback mode.
--◄	Jump/Step backward. – In playback mode, the playback position moves 60 seconds backward.
►--	Jump/Step forward – In playback mode, the playback position moves 60 seconds forward.
►►	Fast forward the footage at 1x, 2x, and 4x speeds in playback mode
REC	Start and stop recording manually.
UP	Scroll up in the system menu or select camera 1 in live mode. It can also be used as number 1 when entering password.
RIGHT	Move right or change values in system menu or select camera 2 in live mode. It can also be used as number 2 when entering password.
DOWN	Scroll down in the system menu or select camera 3 in live mode. It can also be used as number 3 when entering password.
LEFT	Move left or change values in system menu or select camera 4 in live mode. It can also be used as number 4 when entering password.
Enter	Select full screen or quad view in live display mode.
ESC	Return or cancel command

Table2.1.2. Front LED and Port

Name	Description
POWER	Solid light when DVR is power on**.**
HDD	Solid light when DVR is accessing hard disk.

2-3. Rear Panel

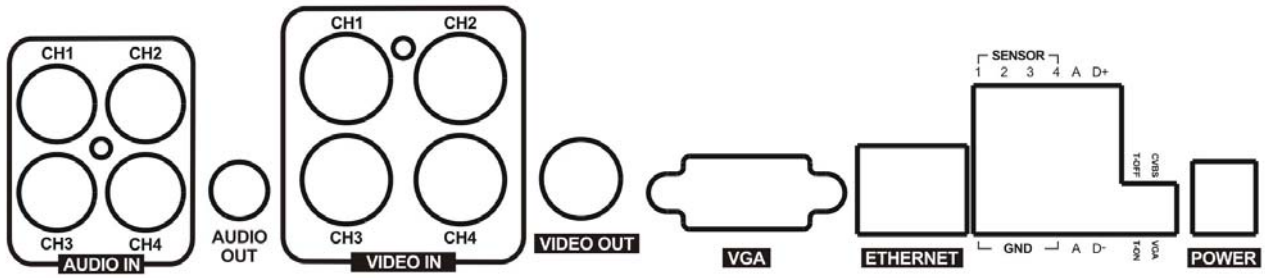


Table 2.2.1. Rear Panel Connections

Label	Operation
VIDEO IN	4ch connectors for video input. Connect camera output to Video-in (NTSC/PAL)
VIDEO OUT	1 connector for video output.
VGA	Connector for VGA monitor
AUDIO	Audio 1~4:AUDIO IN/ADUIO OUT
SENSOR IN	Connection for sensor device
ALARM OUT	1 alarm device output. Provides simple On/Off switching by using relay. 0.5A/125V, 1A/30V
RS-485	Connect to PTZ camera,+→PTZ D+ / - →PTZ D-
LAN	RJ45 connector for LAN connection.
DC 12V	Apply 12V DC using the DC adaptor supplied with the equipment.
VGA / CVBS SWITCH	Select either VGA monitor or CVBS (Composite Video Blanking Sync) monitor. **DO NOT CHANGE THIS SETTING WHEN DVR IS ON.** **DVR MUST REBOOT IF SWICH IS FLIPPED.** **P/S:T-ON/ T-OFF IS ONLY FOR MANUFACTURE USE**

2-4. Remote Controller

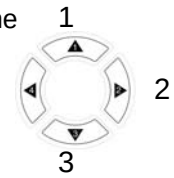
ID	DVR ID setup
REC	Record manually
NUMBER	Press number button to select channel
◄◄	Fast Rewind
►►	Fast Forward
►/ ‖	Play/Pause
►--	PTZ/ Jump/Step forward
--◄	Jump/Step backward
SEL	Enter
DIRECTION	Direction or number 1 to 4
SETUP	Setup menu screen
SEARCH	Search menu screen
ESC	Esc
BACKUP	Backup
SEQ	Sequential channel conversion

3. SYSTEM SETUP

3-1. Setup – Main Screen

After pressing <SETUP> button, DVR will prompt for password. The **default password is 1111**, which can be entered by pressing the <UP> button 4 times and followed by <ENTER> button.

It is highly recommended to setup a new password immediately. After a password has been assigned, enter the password by using the direction keys (representing 1, 2, 3, & 4) or number keys, and press the <ENTER> button for the password validation. Once the password is entered, you will see the screen as shown as below. Navigate through the menu items and press <ENTER> button to enter the sub-category menu



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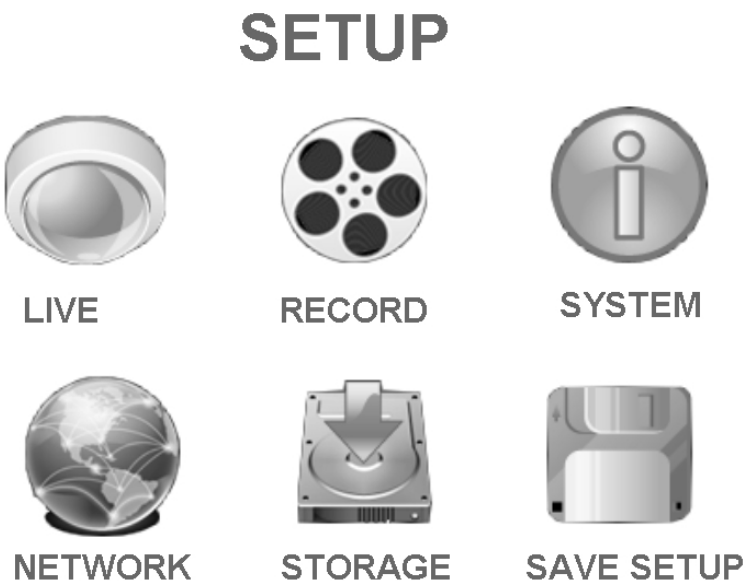
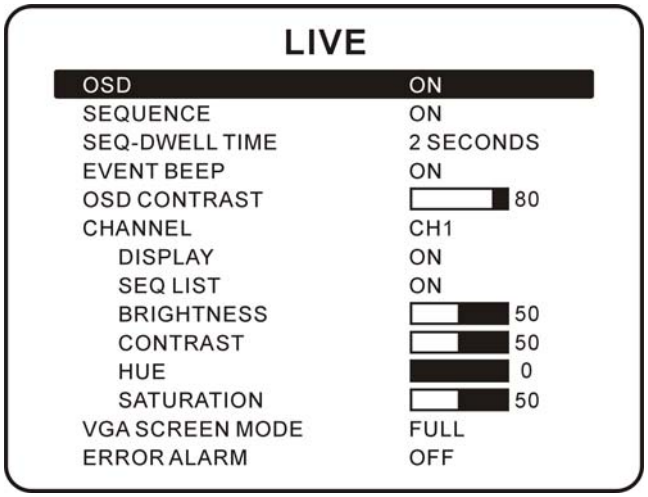


3-2. Setup – Live Mode

Set the values for live display. Navigate through the menu items by pressing <UP> or <DOWN> button. The value of the menu item can be modified by pressing <LEFT> or <RIGHT> button.



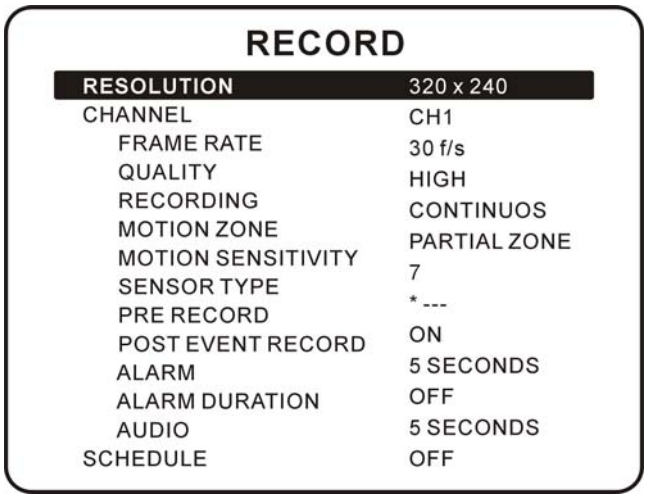
Live mode setup screen

Menu items in LIVE mode setup

Item	Description
OSD	Enable/disable on-screen display.
SEQUENCE	Enable/disable sequential display of video channels in full screen mode
SEQ-DWELL TIME	Dwell time for each cannel display in sequential display mode
EVENT BEEP	Enable/disable internal beep alert sound.
OSD CONTRAST	Set the visibility level of the On Screen Display (OSD)
CHANNEL	Select the channel for applying the following settings.
DISPLAY	Enable/disable display of the video channel in live display mode
SEQ LIST	Enable/disable the specified channel to be included in sequential display mode.
BRIGHTNESS	Change the brightness value for the specified channel
CONTRAST	Change the contrast value for the specified channel
HUE	Change the hue value for the specified channel
SATURATION	Change the saturation value for the specified channel
VGA SCREEN MODE	Select VGA screen mode as either FULL or Normal. **NOTE: If the mode is changed, the system will reboot.**
ERROR ALARM	Enable/Disable alarm for video loss or HDD fail.

3-3. Setup – Recording Mode

Set the values for recording video. Navigate through menu items by pressing the <UP> or <DOWN> button. User can change the value of the menu item by pressing the <LEFT> or <RIGHT> button.



Recording mode setup screen

Menu items in Recording mode setup

Menu item	Description
RESOLUTION	Set resolution to either 704x480(NTSC)/704X576(PAL) or 352x240(NTSC)/352X288(PAL).
CHANNEL	Select the channel to apply the following settings.
FRAME RATE	Set the frame rate for the specified channel. The sum of the frame rate from each channel cannot exceed maximum frame rates for a particul ar recording resolution. Maximum frame rates for NTSC video are 120/100fps for 352x240(NTSC)/ 352X288(PAL) and 30/25 fps for 704x480(NTSC)/ 704X576(PAL)
QUALITY	Select the recording quality for the specified channel from **NORMAL / HIGH / SUPER**.
RECORDING	Assign the recording mode for each channel. Continuous / Motion / Sensor / Schedule / Disable.
MOTION ZONE	Select Full Zone or Partial Zone for motion sensing. If the Partial Zone is selected, screen will be change to setup motion Zone
MOTION SENSITIVITY	Set the motion sensitivity for the specified channel. Adjust the motion sensitivity from 1 to 9.
SENSOR TYPE	Set the type of sensor for the specified channel from none, N/O (normal open), and N/C (normal closed).

PRE RECORD	Enable/disable pre-event recording. Pre-event recording time is 3 sec and only intra-frames are recorded for pre-event recording.
POST EVENT RECORD	Set post event recording time duration up to 30 seconds for the specified channel.
ALARM	Enable/disable alarm generation for the specified channel.
ALARM DURATION	Set alarm time duration for the specified channel.
AUDIO	Enable/disable audio for the specified channel
SCHEDULE	Set recording schedule.

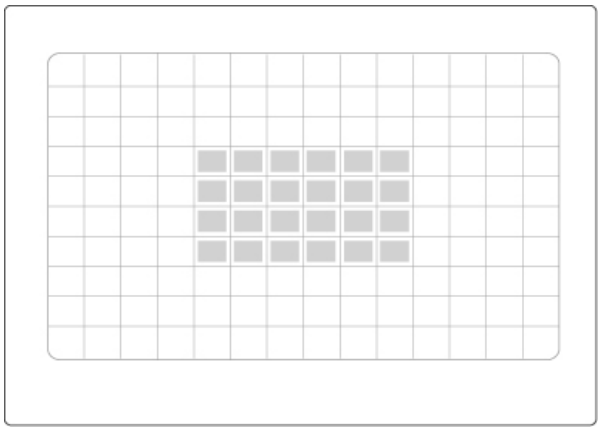
NOTE

1. In order to receive smooth video during playback, it is highly recommend to set the frame rate of each channel for more than 3fps

2. Switch to full screen during playback while audio recoding is enabled.

3-3-1. Motion Zones

By selecting Partial Zone in the Motion Zone menu, users can setup the motion sensing zones in the screen below. Move around each rectangular zone using 4 direction key buttons and press <Enter> button to include the rectangular region as part of the motion sensing zone. The rectangular blocks included as part of the motion zone are indicated by changing the color of the blocks.



Motion Zone selection screen

3-3-2. Recording Schedule

To set up a recording schedule, select SCHEDULE in the RECORD menu.

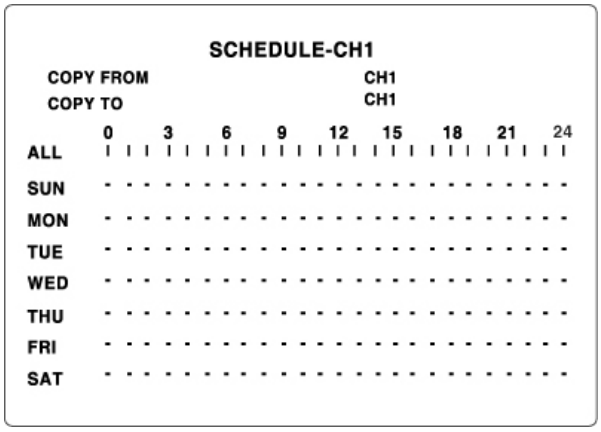
Use the arrow buttons to navigate through the items and set the recording.

[**ALL**]: Press <ENTER> button to apply to the entire time zone and all channels.

[**SUN to SAT**]: Press <ENTER> button to apply to the entire time zone for the specified channel.

[**ENTER**]: The recording mode such as C (continuous), M (motion), S (sensor) and disable mode can be selected by using <ENTER> button.

[**COPY FROM to COPY TO]**: Copy the entire setup values of the selected channel to another channel



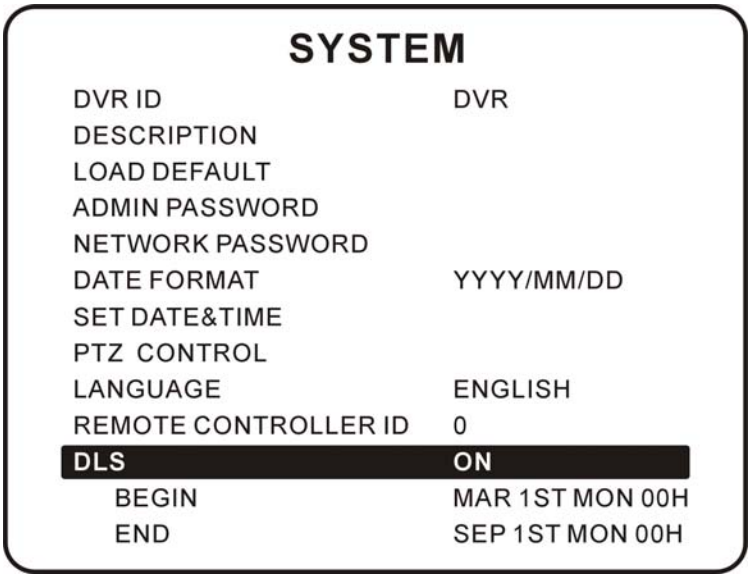
Schedule recording setup screen

3-4. System Mode

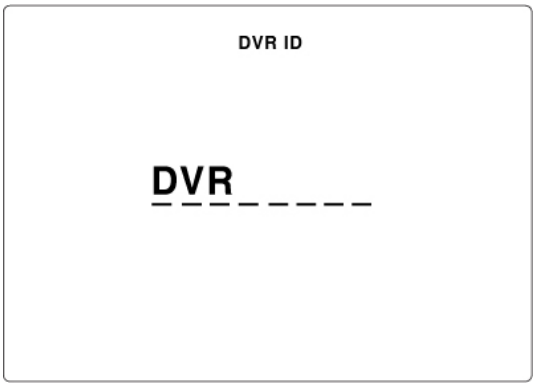
Menu items in System Setup screen

Item	Description
DVR ID	The name of the system. Press the <ENTER> / <SEL> button to select and move through the position for each alphanumeric character by pressing <LEFT> and <RIGHT> buttons. <UP>/ <DOWN> buttons are used to change character for each location.
DESCRIPTION	Press <ENTER> / <SEL> to see system information.
LOAD DEFAULT	Choose OFF or ON. If selecting ON, press the ENTER(SEL) button to load defaults.
ADMIN PASSWORD	Set the password for the administrator. Once this menu is selected, the DVR will ask you current password and new password. Follow the procedure provided by the DVR. The password numbers (1,2,3,4) can be input by using direction keys or number keys. The default password is 1111.
NETWORK	Set the password of network client. Once this menu is selected, the DVR will

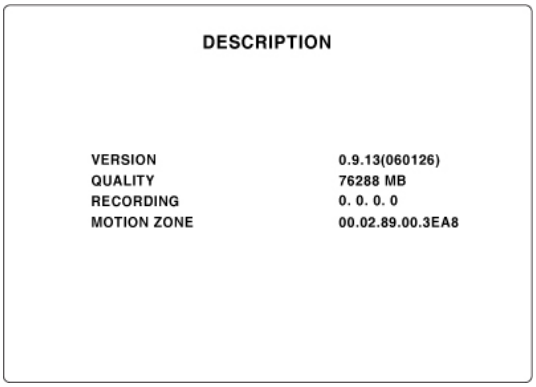
PASSWORD	ask you current password and new password. The DVR will guide you through the entire process of setting up the user password. The password numbers (1,2,3,4) can be input by using direction keys. or number keys. The default password is 1111.
DATE FORMAT	Select the preferred date and time display.
SET DATE & TIME	Set the present date and time. If DLS function is ON, user can not enter into this menu and change data and time.
PTZ CONTROL	Set the camera speed, number, type and ID
LANGUAGE	Select system language.
REMOTE CONTROLLER ID	Select an ID of remote controller.(Default ID is 0) 1. Select ID from 0 to 9. 2. Press the same number as ID set in DVR on a remote controller 3. Then icon will be displayed on Live screen of DVR that respond to the remote controller.
DLS	User can set to ON or OFF for DLS(Daylight Saving) by using <LEFT> or <RIGHT> button. After selecting ON, move the cursor to BEGIN (MM/DD/HH) and press the SELECT button to set the start time of DLS. And move to END (MM/DD/HH) to set the stop time of DLS by using <UP> or <DOWN> button. **CAUTION:** -DLS can't start from 23:00 -DLS can't be applied, if the date of BEGIN and END is same.



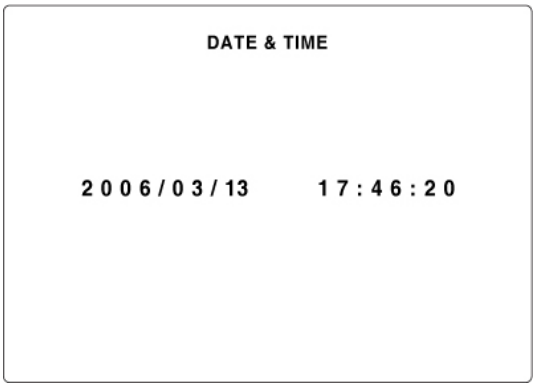
System setup screen



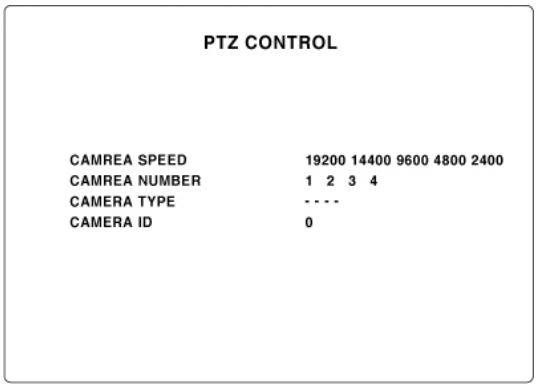
DVR ID setup screen



DVR information display screen



Date & Time setup screen.



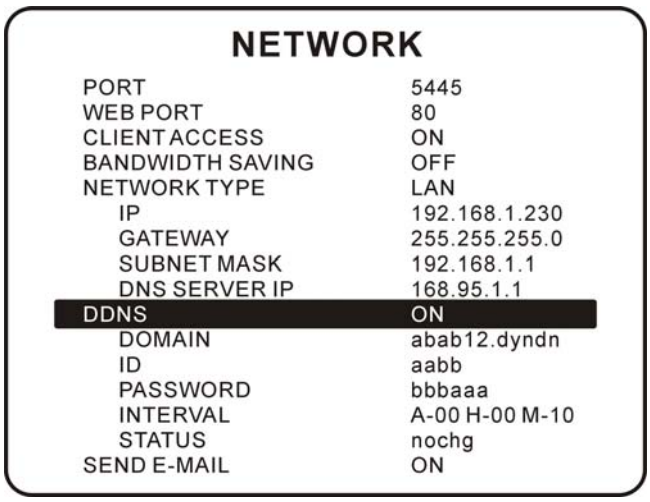
PTZ Control setup screen

3-5. Network

Set up your network parameters on the Network Setup screen.

Menu items in Network Setup screen

Item	Description
PORT	Video Port number (Default: 5445)
WEB PORT	IE Browser port number (Default:80)
CLIENT ACCESS	Enable/Disable remote access through client software.
BANDWIDTH SAVING	Enable/Disable only key frame transmission. “ON” mode is favorable for use of low network bandwidth. Mostly, set “OFF” for normal use.
NETWORK TYPE	Set the type of network connection. Options are: LAN, DHCP, ADSL Note. Other parts of the Network Setup screen will change according to what network type you have selected.
DHCP	Set to use DHCP (If this is selected, DVR will automatically get IP varying from time to time from network.)
ADSL (PPPoE)	ID: Registered ID is necessary for ADSL connection. Password: Registered password is necessary for ADSL connection.
LAN	IP: Register IP address that is assigned for DVR. Gateway: Register Network Gateway Subnet Mask: Register Network Subnet Mask DNS Server IP: Register Network DNS Server IP
DDNS	Support DYNDNS.com
SEND-EMAIL	Send E-mail when IP change or Event happen



Network setup screen

3-5-1. Ports

When connect one or more DVRs to a network through an IP sharing device, each devaice must have a unique TCP port number in order to access to each unit from outside the LAN. Also, the IP sharing device must be configured for port forwarding

Note: This port number is listed next to the Port menu option in the Network Setup screen. If you plan to access the DVR units only from the same LAN, the TCP port does not have to be changed.

Network access beyond Router

In order to access beyond Router (Firewall), user must open 1 TCP port for Command level, Live channels, and Storage channels. If this port is not open properly, user can not access DVR beyond a router.

3-5-2. Network types

3-5-2-1. LAN

1. Please contact your network administrator if you need information to assign DVR with Static IP.
2. When DVR is installed in IP sharer that is connected with ADSL, a user can assign Static IP to DVR from IP sharer using “DMZ” function.

3-5-2-2. DHCP

An IP address is automatically assigned by the DHCP server, which automatically assigns IP address and other parameters to new devices.

3-5-2-3. ADSL (PPPOE)

Use this ADSL (PPPoE) function when the network type connected to the DVR is PPPoE method.

Item	Description
ID	The user ID for ADSL connection
PASSWORD	The password for ADSL connection

Table 3.5.3. ADSL

3-5-3**. E-MAIL Notification**

IP Notification: DVR will send an Email notification to recipient automatically if IP changes.

EVENT ALARM: DVR will send an Email notification to recipient automatically if event detected.

MAIL ADDRESS: Recipient Email address

MAIL SERVER name: Recipient Email server address

ID: Recipient Email login ID

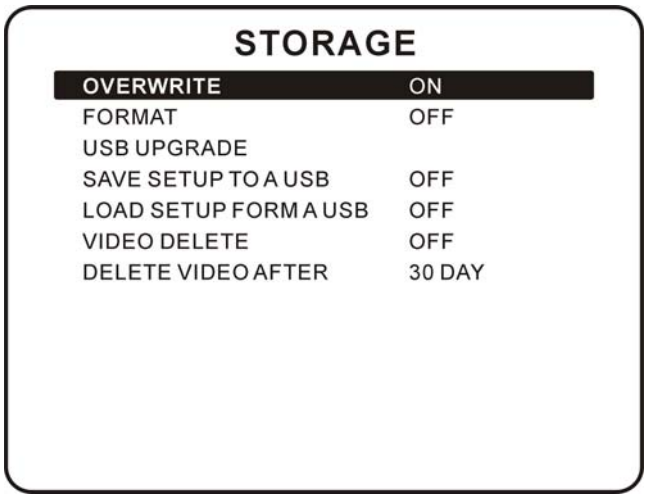
PASSWORD: Recipient Email login password

RETURN MAIL ADDRESS: Sender Email address

3-6. Storage Mode

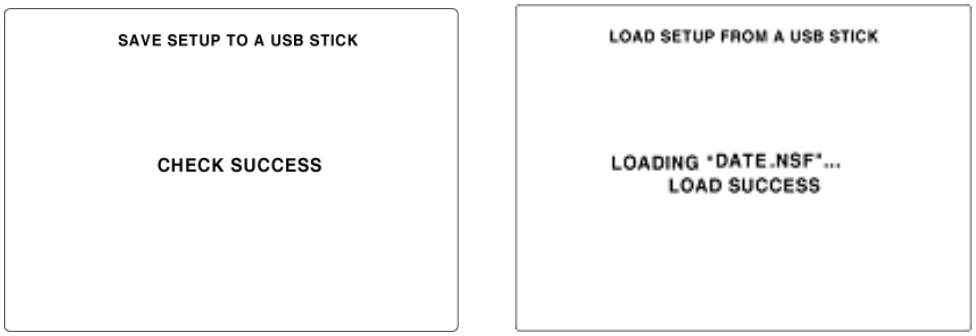
User can set recording mode or initiate format in the hard disk drive.

Item	Description
OVERWRITE	Overwrite existing data when hard disk drive is full
FORMAT	Format hard disk drive
USB UPGRADE	The firmware of DVR can be upgraded through USB port via USB memory stick. Please follow the steps below for new firmware upgrade: 1. Create a new folder in USB memory stick. (Note: The folder name must be named “upgrade”) 2. Copy the new firmware bin file into that folder 3. Connect the USB memory stick to the front panel USB port. 4. Go to STORAGE → USB UPGRADE in the system menu 5. Select CONFIRM and the upgrading process will begin automatically. 6. After the upgrade is completed, DVR will reboot automatically. (Note : DO NOT TURN OFF DVR WHILE UPGRADING)
SAVE SETUP TO A USB	User can save the current configuration of DVR to the USB memory stick by simply insert the USB stick on the front panel and press <ENTER> / <SEL> to start the saving process
LOAD SETUP FROM A USB	User can upload the configuration of DVR to another DVR using the USB Memory stick by simply insert the USB stick on the front panel and press <ENTER> / <SEL> to start the loading process. After upgrade is completed, DVR will reboot automatically and setup value will be applied.
VIDEO DELETE	Enable/disable recording limit.
DELETE VIDEO AFTER	Set the limit days for recording to the hard disk drive from 1 to 60 days.



Storage setup screen

Storage setup –USB UPGRADE



Storage setup – SAVE SETUP TO A USB & LOAD SETUP FROM A USB

3-7 SAVE SETUP

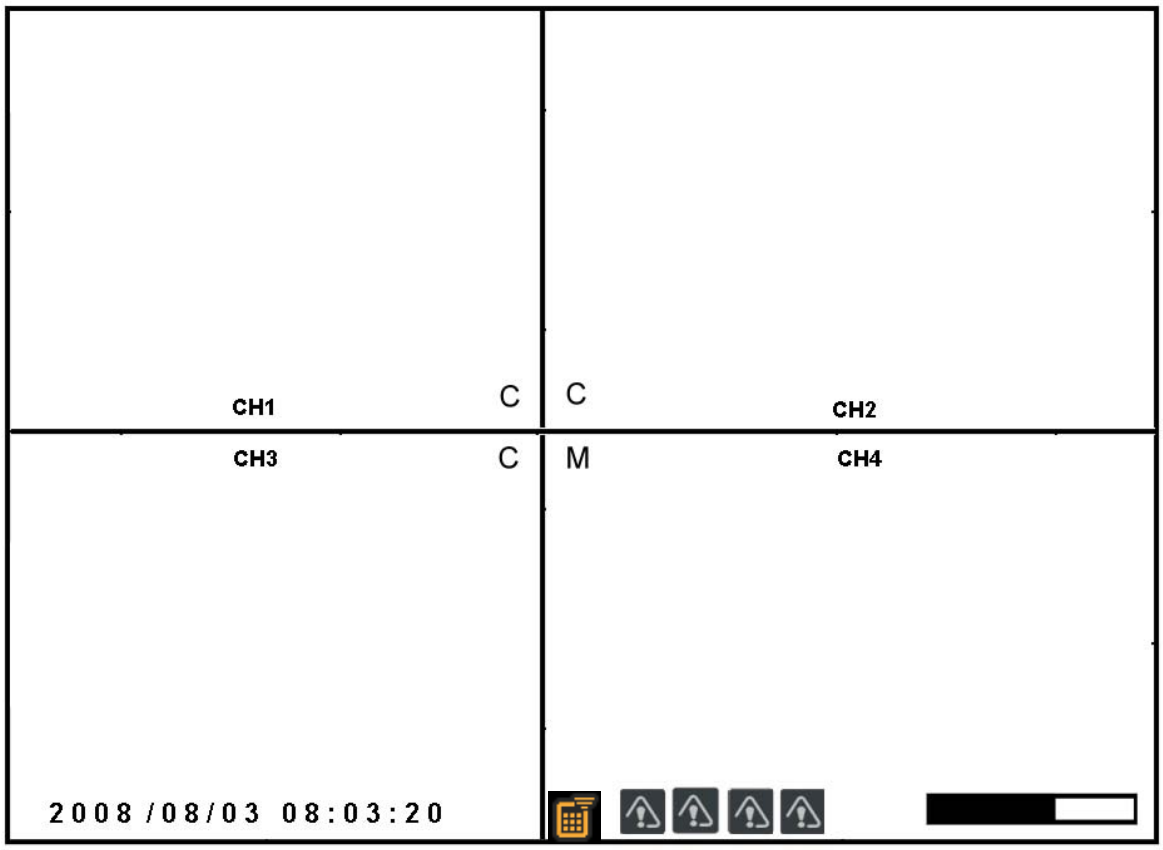
Please select SAVE SETUP and click “YES” to save all settings.

NOTE: DVR WILL REBOOT AUTOMATICALLY WHEN USER MODIFIES:

1. **NETWORK IP ADDRESS**
2. **TIME & DATE**
3. **FORMAT HDD**
4. **LOAD DEFAULT**

4. Live & Search

4-1. Live Window



Live window

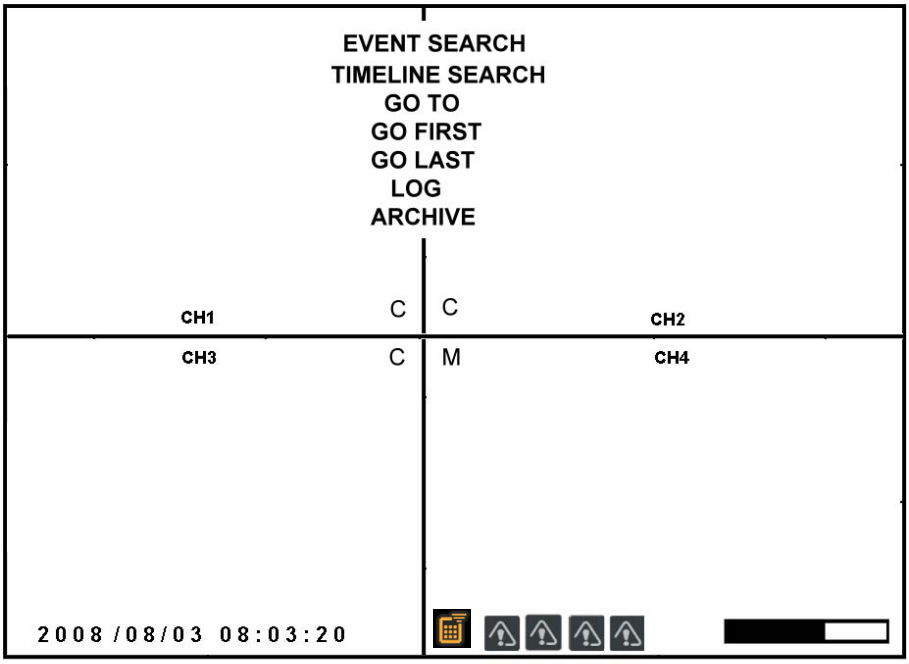
ICONS in Live window

Icon	Description
C	Continuous recording in progress
R	Manual recording in progress
M	Motion recording is triggered
S	Sensor recording is triggered
	Indicates the HDD is overwriting
	Indicates alarm output is activated.
	Event indicator. When there is an alarm (sensor alarm or motion alarm) in the video channel, this icon will be highlighted in bright red.
	Indicates a network client is connecting to the DVR.

	Indicates sequencing mode is enabled.
	Indicates the percentage of recorded data into HDD
	The icon will appear when it matches with remote controller ID.

4-2. SEARCH Window

Press <SEARCH> button in live mode to enter the Search screen, followed by a password. Use arrow buttons or remote controller to enter the password.



Search window

4-2-1. EVENT Search

The Event Search window is used to find stored video. Three categories of search filters can be applied: DATE, CHANNEL and TYPE. Press <ENTER> to select a value and move down to the next category and use the <UP> arrow button to move up to the categories you have previously entered. The <ESC> button will return the user to the previous screen.

1. Select the date of the video to begin searching. Use the <LEFT>, <RIGHT>, <UP>, and <DOWN> buttons to navigate through the days.
2. Once you have selected the date, press <ENTER> to move to the CHANNEL selector.
3. Use <LEFT> and <RIGHT> buttons to change the channel selection from ALL to any of the available channels.
4. Once you have selected the channel, press <ENTER> to move to the TYPE selector.

5. Use the <LEFT> and <RIGHT> buttons to change the type of recording to ALL, MOTION, SENSOR, MANUAL, or CONTINUOUS.
6. Once you have selected the type of recording to search for, press <ENTER> to show a list that meet your search criteria.
7. Use the <UP> and <DOWN> buttons to scroll through the on-screen listings.
8. Use the <LEFT> and <RIGHT> buttons to display a list of events that happened previously to or after the current selection.
9. Once the desired event has been selected, press <ENTER> to start playing back the selected video.
10. Press the CAPTURE (BACKUP) button to launch the archiving function in playback mode.

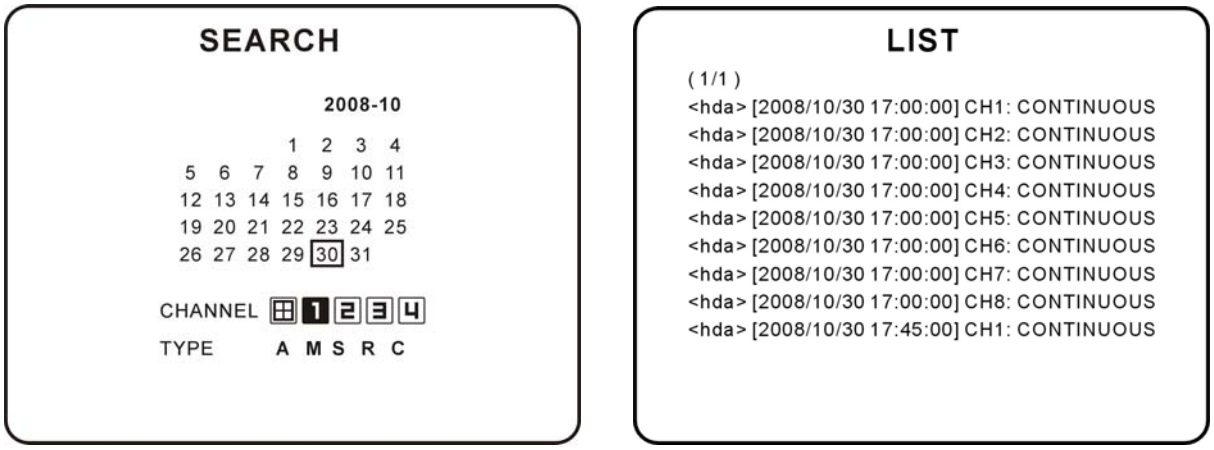


Figure 4.2.2. Event search screen

TYPE:
A: All Event Recording
M: Motion Recording
S: Sensor Recording
R: Manual Recording
C: Continuous Recording

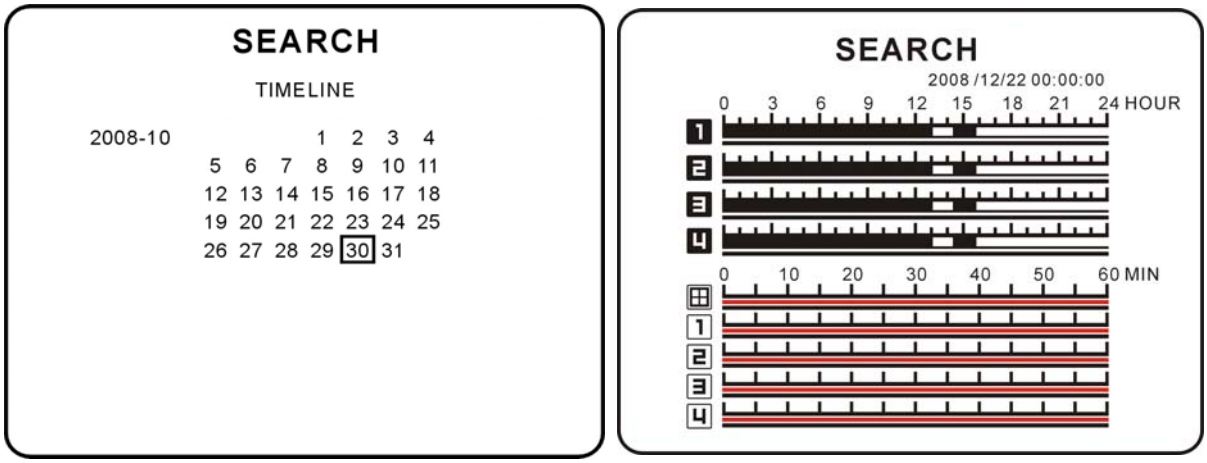
4-2-2. TIME LINE SEARCH

The TIME-LINE search window is allowing user to find the stored video by using the time line bar.

1. Select the date of the video to begin searching by using the <LEFT>, <RIGHT>, <UP> and <DOWN> buttons to navigate through the days.
2. Once you have selected the date, press the <ENTER> button to move to the time line search window.
3. Use directional buttons to select a time zone on the 24 hours time table.
4. Once you have selected the time zone, press the <ENTER> button to move to the 60 minutes time table.
7. Select All or a specific channel to search by using the <UP> and <DOWN> arrow buttons.
8. Once you select the channel, use the directional buttons to move the time line select bar (blue) to the point

you wish to start playing the video clip.

9. Press <ENTER> button to playback the recorded video.

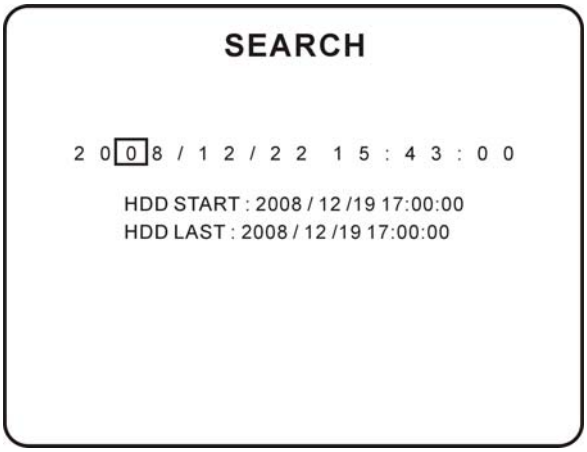


Time line search screen

RED Bar: Video data on the time bar
GREEN Bar: Audio data on the time bar

4-2-3. GO TO SPECIFIC TIME

You can search for specified data by setting the time and date in this menu. Use <LEFT> or <RIGHT> button to move from left to right in this menu, and <UP> or <DOWN> button to set the date and time.



GO TO search screen

4-2-4. GO FIRST TIME

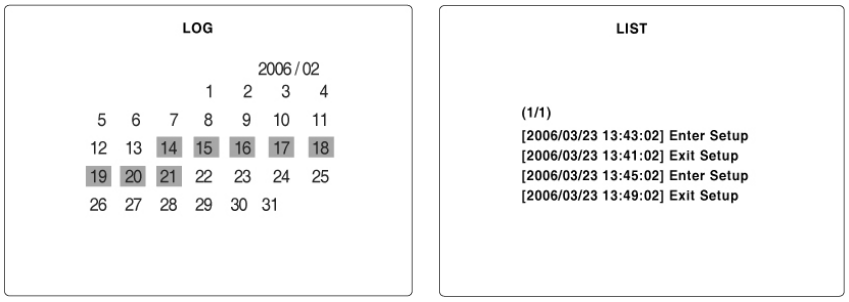
You can access to the first data which has been recorded into the HDD disk by pressing this option.

4-2-5. GO LAST TIME

You can access to the last data which has been recorded into the HDD disk by pressing this option.

4-2-6. LOG

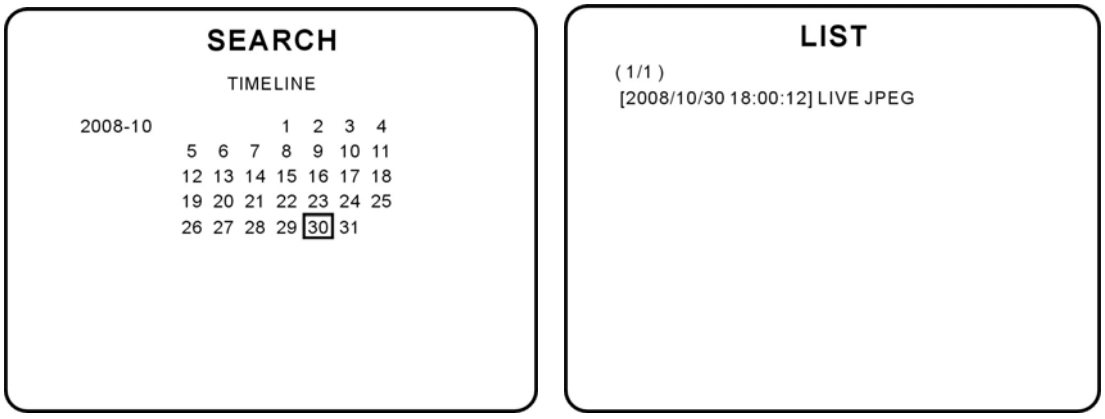
User can see the log list by selecting this menu.



4-2-7. ARCHIVE

The ARCHIVE SEARCH window is used to find the stored video.

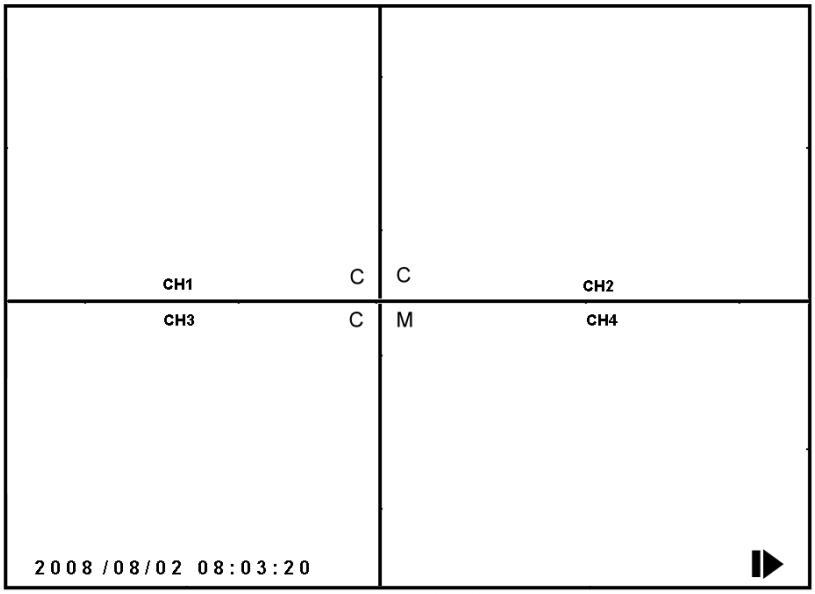
1. Select the date on the calendar to begin searching by using <LEFT> or <RIGHT> button.
2. Once you have selected the date, press <ENTER> button to move to the list of recording data.
3. Use <UP> or <DOWN> button to scroll through the onscreen listings.
4. Press <ENTER> button to see the selected video in paused mode.
5. Press <ARCH> button to archive the video into USB memory stick.



Archive search screen

4-3. Play Mode

While in PLAY mode, you may return to SEARCH LIST by pressing the ESC button.



Button functions in Play mode

Button	Description
ESC	Return to the previous menu screen or exit from the setup menu
◄◄	Press to rewind the footage at 1x, 2x, and 4x speeds. Reverse playback speed is shown as -1x (normal), -2x (2 times normal), and -4x (4 times normal) at the bottom right of the screen.
►►	Press to fast forward the footage at 1x, 2x, 4x, and 8x speeds. Playback speed is indicated as +1x, +2x, +4x, and +8x for normal, twice, 4 times, and 8 times of the regular speed at the bottom right of the screen.
►/ ‖	Press to play / pause recorded video.
►--	Jump/Step forward. Playback position moves 60 seconds forward.
--◄	Jump/Step backward. Playback position moves 60 seconds backward.
	Use to select channel 1 to 4 in full screen mode or change to quad display by directional button. .
ENTER	Switch between full screen and current display mode.

5. Archiving and Backup

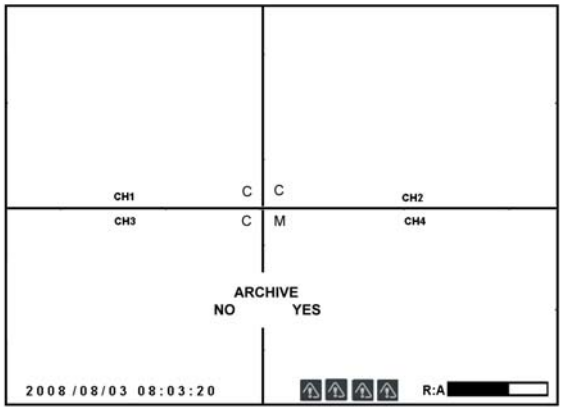
To backup a still image or video to a USB storage device, user must archive a still image or video to the hard drive.

5-1. Archiving Still Images & Video

Still images can be captured and archived into the hard drive in live mode or while playing back.

5-1-1. In Live Mode

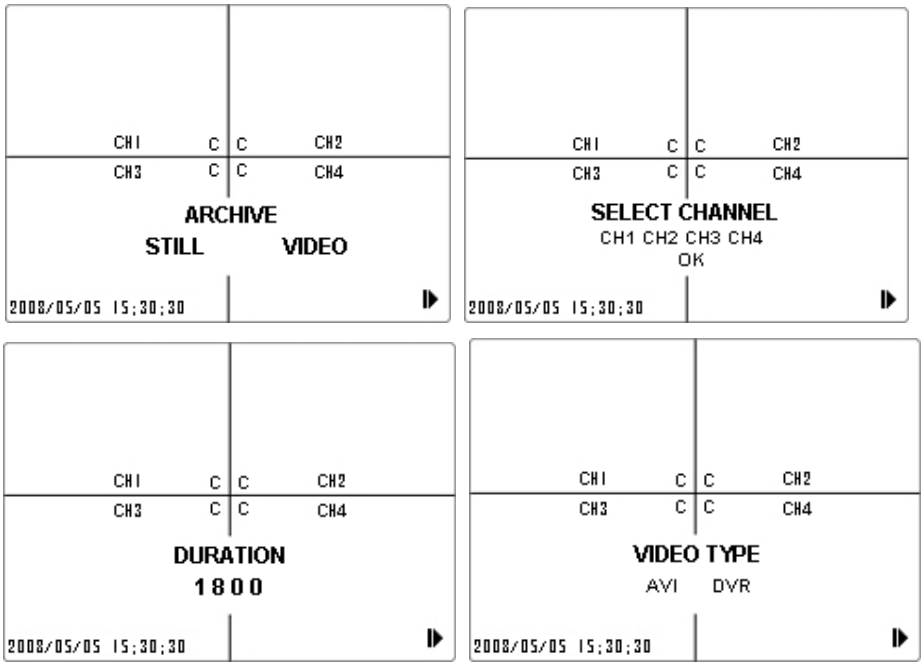
Press ARCH button to capture and archive the still image. Once you press the ARCH button, the scr een will be displayed as follow:



Archive screen in Live mode

5-1-2. In Playback Mode

DVR will ask whether to store still image or video. If the user selects still image or video, it will store captured image or video into the HDD. User can find the list of archived data in ARCHIVE search menu.



Archive screen in Playback mode

NOTE:

1. ONLY ONE CAMERA CAN BE BACKUP AT A TIME.
2. PLEASE USE DIRECTIONAL BUTTON TO SELECT SINGLE CHANNEL.
3. DVR WILL STOP RECORIDNG DURING BACKUP
4. UP TO 1800 SECOND (30 MINS) BACKUP DURATION AT A TIME

5-2. Backup Still Images or Video to USB Memory Stick

1. To begin transferring stored image or video into a USB memory stick, connect a USB memory stick.
2. Press <SEARCH>button to bring up the ARCHIVE search screen which allow you to specify a date & time to search for stored images or videos.

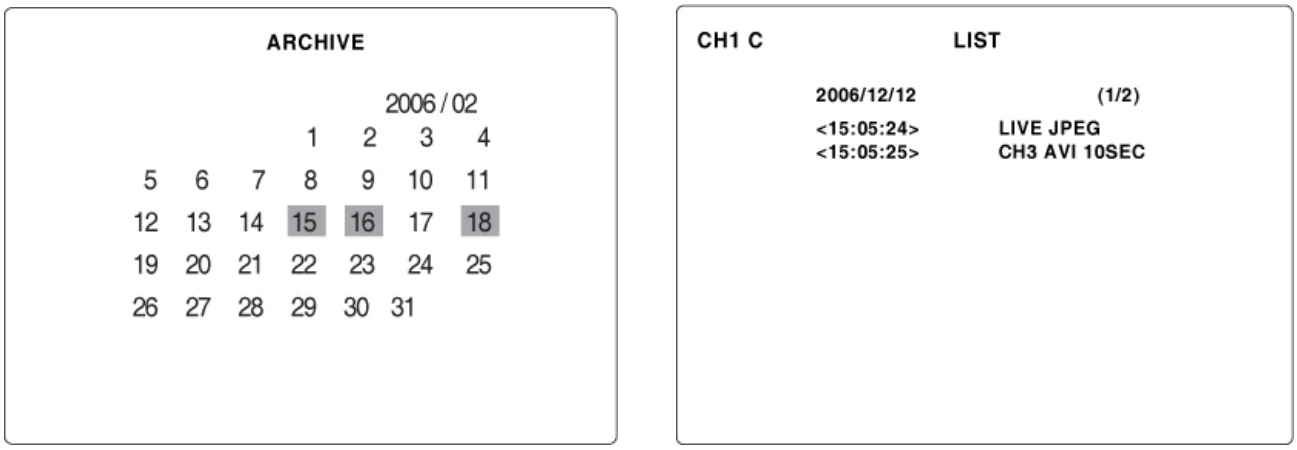


Figure 5.2.1.Archive search screen

3. Press the <ENTER> / <SEL> button to retrieve lists of archived image or video.
4. Select and display one of the files on the screen in the archived list by using the <UP> or <DOWN> button.
5. Press the ARCH button to transfer the data into the USB memory stick.
6. A message will appear if there is no enough space in the USB memory stick

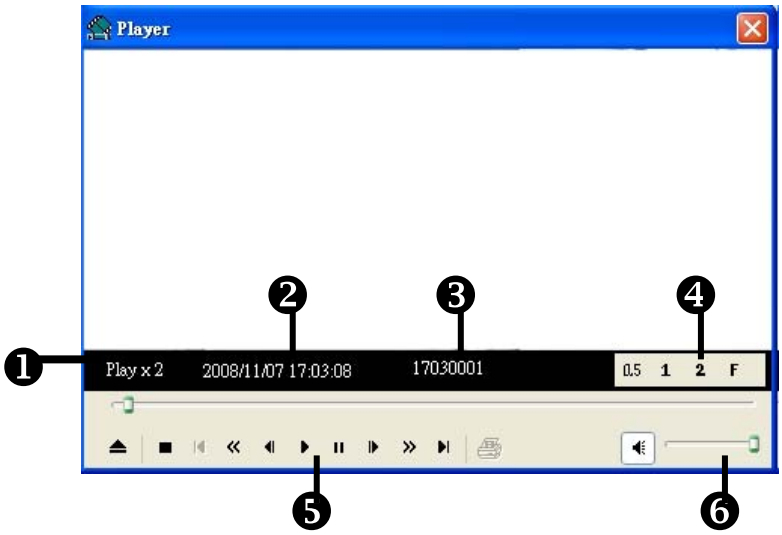
5-3. Backup Video Playback

5-3-1. Playback a backup video in AVI format

Please install the 'FFDSHOW' codec from DVR CD if the AVI file is unable to play correctly.

5-3-2. Playback of backup video in Exclusive (NaFs) format

Please use **VIEWER.EXE** player to playback this video format.



1. Show the playback speed. Click "▶" to adjust playback speed
2. Playback Date / Time
3. Show current playback file
4. Switch the screen size (F: Full screen)
5. Control the playback speed
6. Adjust Audio volume

6. Upgrading Firmware

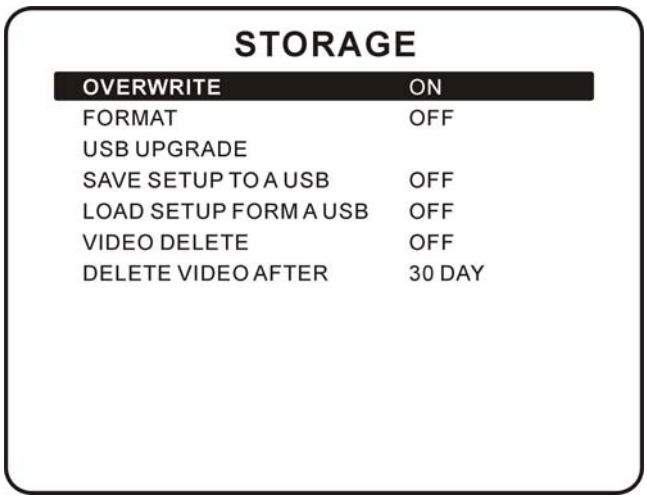
In order to perform new firmware upgrade, the new firmware file must first be downloaded and copied into the USB memory stick. Create a new folder in the USB memory stick and name it “upgrade”. Copy the firmware upgrade file “app16xxxxxx.bin” into the “upgrade” folder.

NOTICE

The folder on the USB memory stick **MUST** be named **“upgrade”**.

After the firmware upgrade is copied into the USB memory stick, connect the USB memory stick to the USB port on the front panel

1. Press the <SETUP> button and enter the admin password.
2. Go to STORAGE page
3. Make sure USB memory stick already plugged in
4. Select “USB UPGRADE” and press <ENTER>
5. DVR will upgrade to the new firmware automatically



Engineering mode screen

7. Network – Remote Viewer

The DVR provides a live remote monitoring feature. Remote monitoring requires installation of a software client program on your PC.

NOTICE

In a high bandwidth network, maximum four users can access to one DVR simultaneously. In a low bandwidth network, it is recommended to have only one user access the DVR at a time.

For remote viewing, the frame rate is limited to 1 frame/sec when there is no recording operation in the DVR. When the DVR is recording, the video frame rate for remote live monitoring will follow the recording frame rate on the DVR.

7-1. Overview

The remote software supports remote live viewing, search, playback and system configurations.

By installing the Network Client Viewer on a Windows PC, you can monitor real-time and recorded images via optional Ethernet network.

7-2. Minimum PC Requirements

PC Specification	Minimum Requirement	Recommended
CPU	Intel Pentium Ⅲ 500MHZ	Intel Pentium Ⅳ 2GHZ
Memory	128MB	512MB
VGA	16MB	64MB
Resolution	1024x768	1024x768
OS	Windows 2000	Windows 2000, XP, Vista
Network	10/100Base T	10/100Base T
Others	Direct X 8.1	Direct X 9.0 or Higher

Before installing the program, please check the PC specifications. The Network Client Viewer may not perform correctly if the PC does not meet the minimum requirements.

7-3. Program Installation

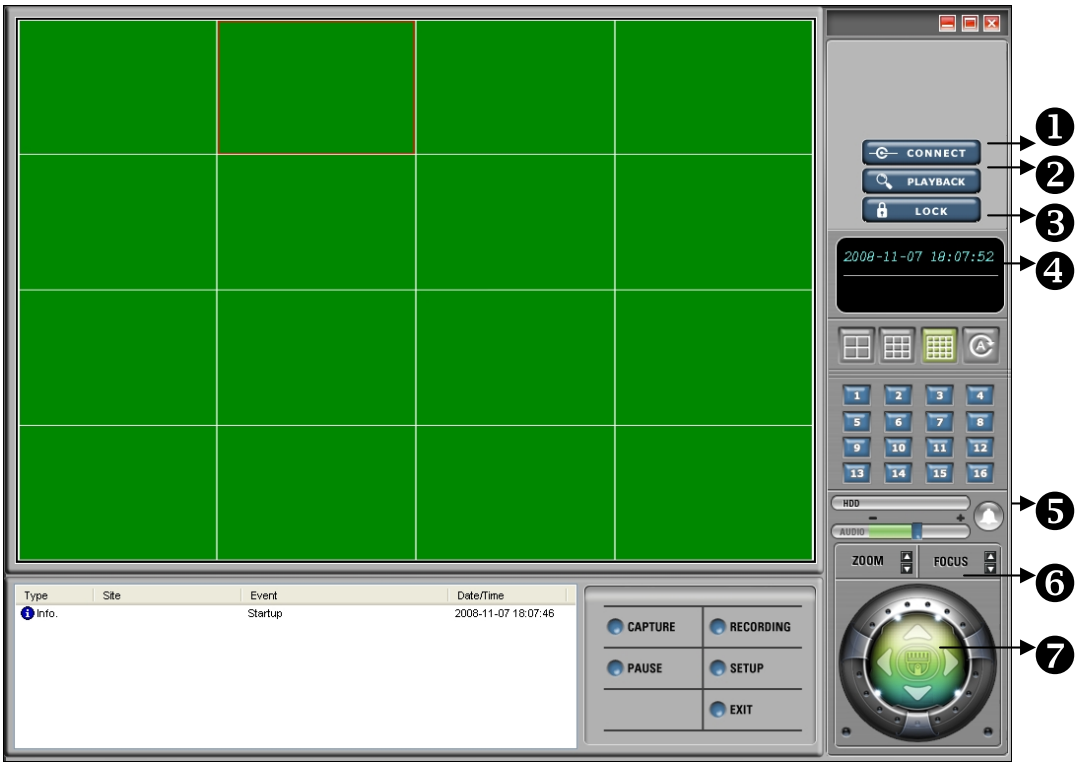
1. Insert the provided CD into the CD-ROM drive of your PC.
2. Follow the on-screen directions.
3. Double click the

icon to start the installation.

7-4. Live Viewer

Double click the

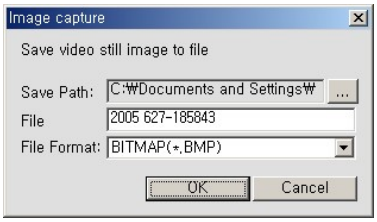
icon on your desktop to launch the program.



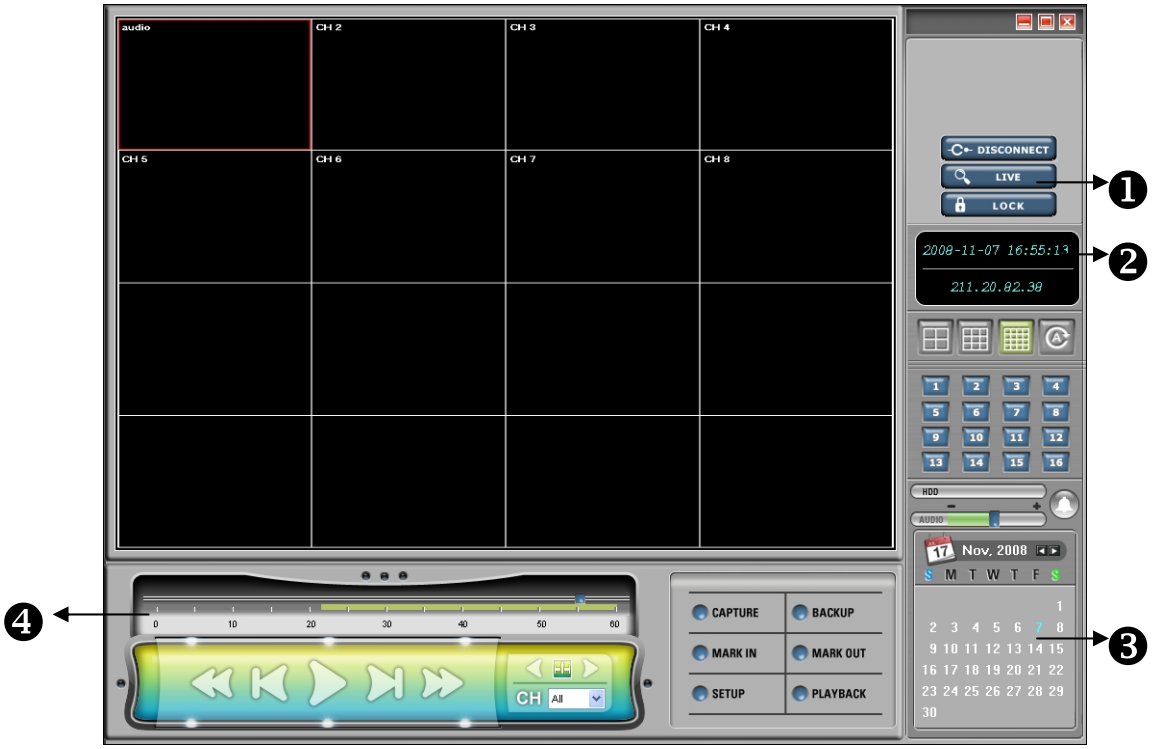
Main user interface

Main controls in Live

NO	Button	Description
1	**CONNECT**	Connect to the DVR
2	**PLAYBACK**	Search and playback for recorded video.
3	**LOCK/ UNLOCK**	Lock/unlock all operations of the client software.
4	**DATE & TIME**	Displays the current date and time.
5	**ALARM**	The alarm output indicator lights up for 5 seconds if alarm output is activated on the DVR.
6	**ZOOM/ FOCUS**	Control the ZOOM/ FOCUS features on the remote PTZ camera.
7	**PAN/TILT**	Control the PAN/TILT features on the remote PTZ camera.

CAPTURE	Capture a still image. Once the capture icon is clicked, this pop-up window appears. The still image is captured in either jpeg or bmp file format. 
PLAY/PAUSE	Play/pause live video.
RECORD	Enable or disable recording of live video to local disk.
SETUP	Setup configuration of client software.
EXIT	Exit the client software.
AUDIO	Use the volume control bar to set the audio level. The audio can be turned on or off by clicking the audio icon.
HDD USAGE	DVR HDD storage Indicator.

7-5. Search and Playback Viewer



Main user interface

Main controls in Search

No	Button	Description
1	**LIVE**	Switch to Live Video Mode.
2	**DATE & TIME**	Displays the recording time of the data selected on the time bar at the bottom of the main user interface.
3	**SEARCH CALENDAR**	The calendar shows dates with recorded video in a light blue and the selected date in dark blue.
4	**TIMELINE BAR**	The timeline shows recorded data in dark blue on the bar. Adjust the time-line scale to playback. Click the play icon to display the recorded video.
	CAPTURE	Capture a still image of recorded video. Once the capture icon is clicked, this pop up window appears. The still image is captured in either jpeg or bmp file format.
	MARK IN	Set the video backup start time.
	MARK OUT	Set the video backup end time.
	BACKUP	Backup the selected recorded video in AVI format.

7-5-1. Backup

Backup a recorded video in AVI format from the search viewer.

1. Click the <MARK IN> button when the scale on the blue timeline is on the time you wish to the backup file to begin.

2. Set the ending time on the blue timeline by dragging the scale to the ending time for the backup file and clicking the <MARK OUT> button. The color of the timeline between the beginning time and ending time will change to dark green.

3. Click the <BACKUP> button and the pop up window appears as below.

The start and end time can also be set on this window.

After selecting a channel for backup, click the <OK> button. The backup will begin.

7-6. PC System Configuration

Setup the remote software configuration

7-6-1. General

Once you click the <SETUP> button, window below will appear. Select security options and set a password. When you access any of the selected functions, you will need to enter the password.

You can also set the save path for capturing and backup.

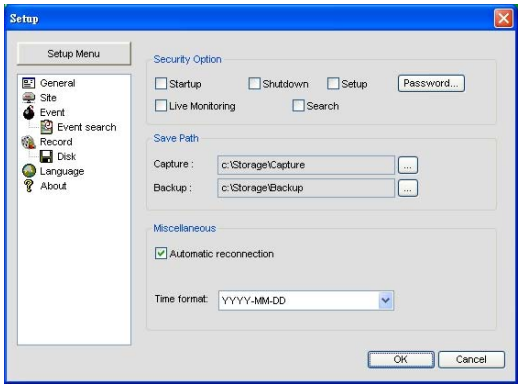
Security Option: Set a password for security options.

Save Path: Specify the location to record the receiving video for Backup and still image for Capture.

Automatic reconnection: Select to automatically reconnect to the previously connected IP address if the network connection is lost.

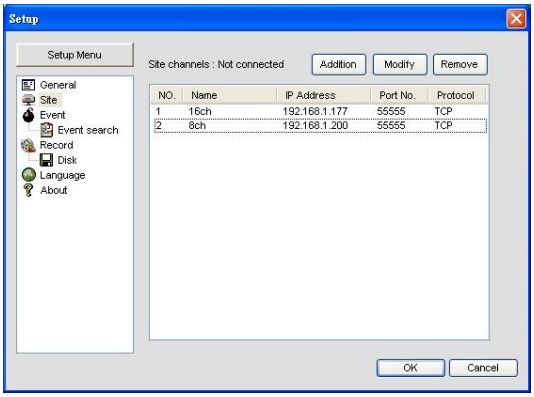
Display network statistics: Select to display network status, Bit rate and Frame rate.

Time Format: Change the display time format.

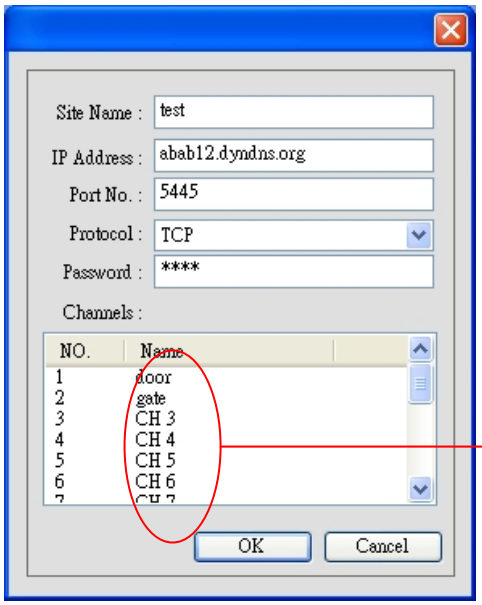


7-6-2. Site

This option shows the channel information of the DVR and change the channel title.



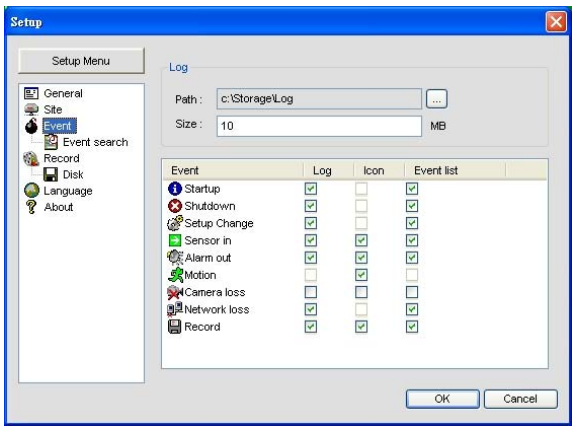
Click “Addition” to register a site



Double click “Name” to modify camera name

7-6-3. Event

You can set event items, the amount of local disk space and save path for the log file.

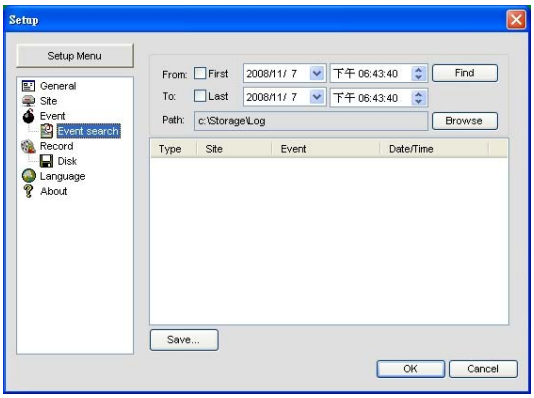


1.LOG – Select to save event log into ‘log file’.

2.ICON – Select to display the event on live video.

3.EVENT LIST – Show the event in the ‘Event List” in live mode.

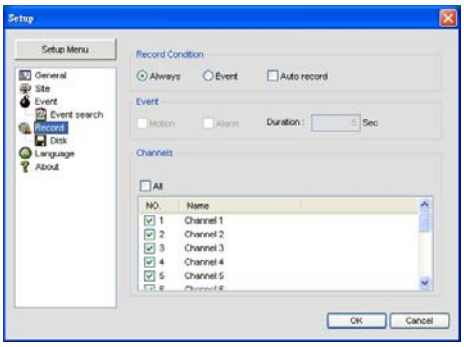
Search and check the recorded log data.

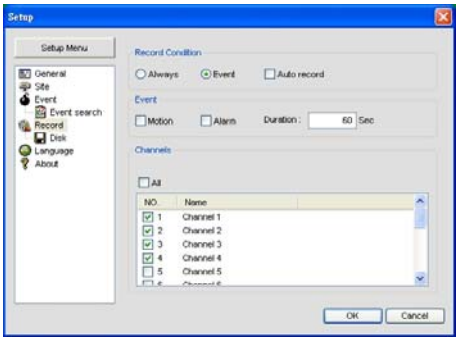


7-6-4. Record

Set the recording method for Always, Event, or Auto recording. You can also select individual channels or all channels to record.

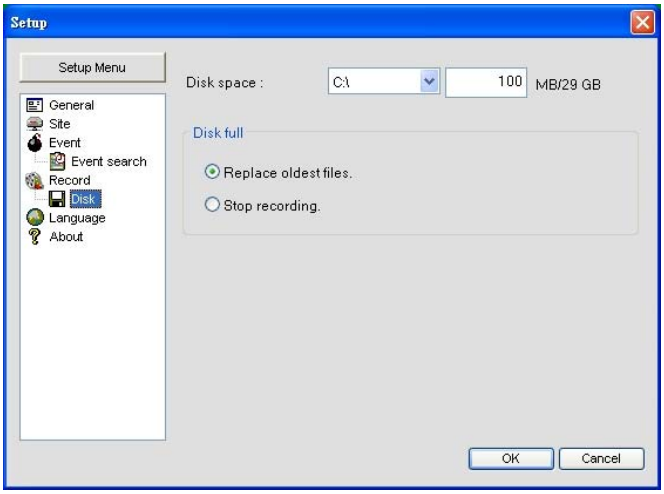
When an Event method is selected, you can set event for motion or alarm with duration. You can also set each or all channels to record.





7-6-5. Disk

You can select which local disk to use and the amount of disk space you want to allow the program to use for recording. You can also choose to overwrite data or stop recording when the maximum amount of disk space is full.

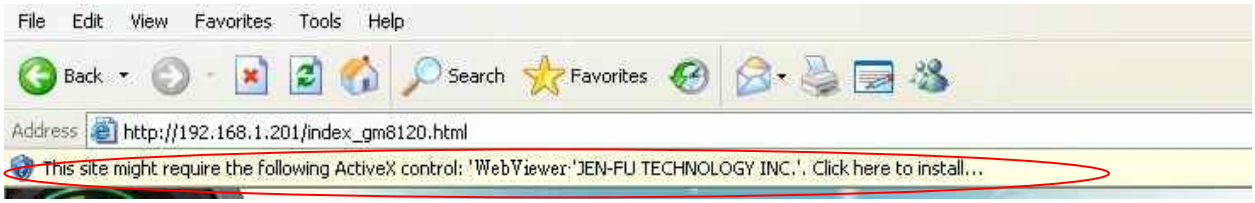


8. Network – IE Browser Viewer

The DVR provides a live remote monitoring feature by web-browser viewer.

8-1. Download Web Brower Viewer and Connection

Type the DVR's IP on the IE address field and install ActiveX™ program.



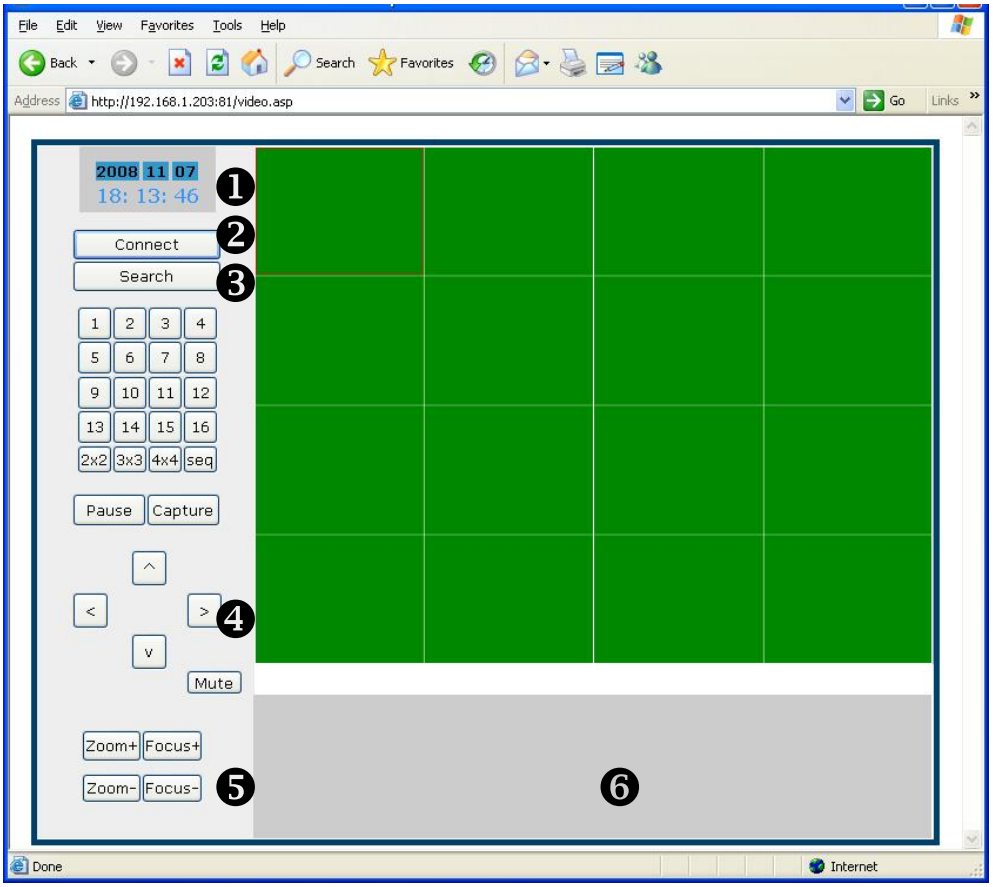
After above, please click "Install ActiveX Control" item again to install the ActiveX object

Please select to continue installation.

Internet Explorer - Security Warning
Do you want to install this software?
Name: web Viewer
Publisher: JEN-FU TECHNOLOGY INC.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

8-2. Main Features

8-2-1. Live

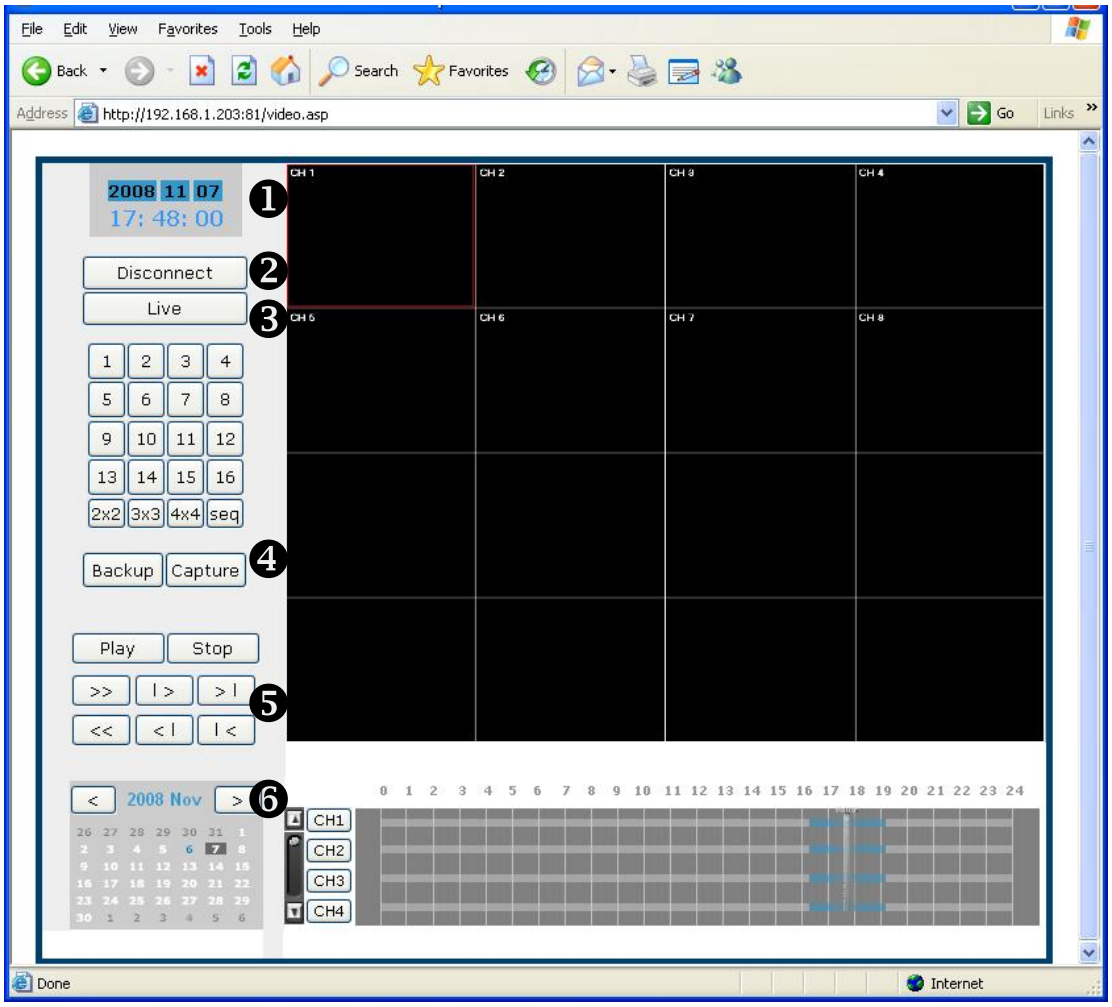


Main user interface - Live

Main controls in Live

No	Name	Description
1	**DATE & TIME**	Displays the current date and time.
2	**CONNECT**	Connect to the DVR
3	**SEARCH**	Search for recorded video.
4	**PAN/TILT**	Use these buttons to control the PAN/TILT features on the remote camera.
5	**ZOOM/FOCUS**	Use these buttons to control the ZOOM/ FOCUS features on the remote camera.
6	**CONNECTION STATUS**	Shows the client connection information.
	PAUSE	Pause the display screen.
	CAPTURE	Capture the image from live display.
	AUDIO	The audio can be turned on or off by clicking the audio icon.

8-2-2. Search and Playback


File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.1.203:81/video.asp
Go Links
2008 11 07
17: 48: 00
Disconnect
Live
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
2x2 3x3 4x4 seq
Backup Capture
Play Stop
>> I > > I
<< < I I <
< 2008 Nov >
CH1 CH2 CH3 CH4
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Done
Internet

Main user interface – Search & Playback

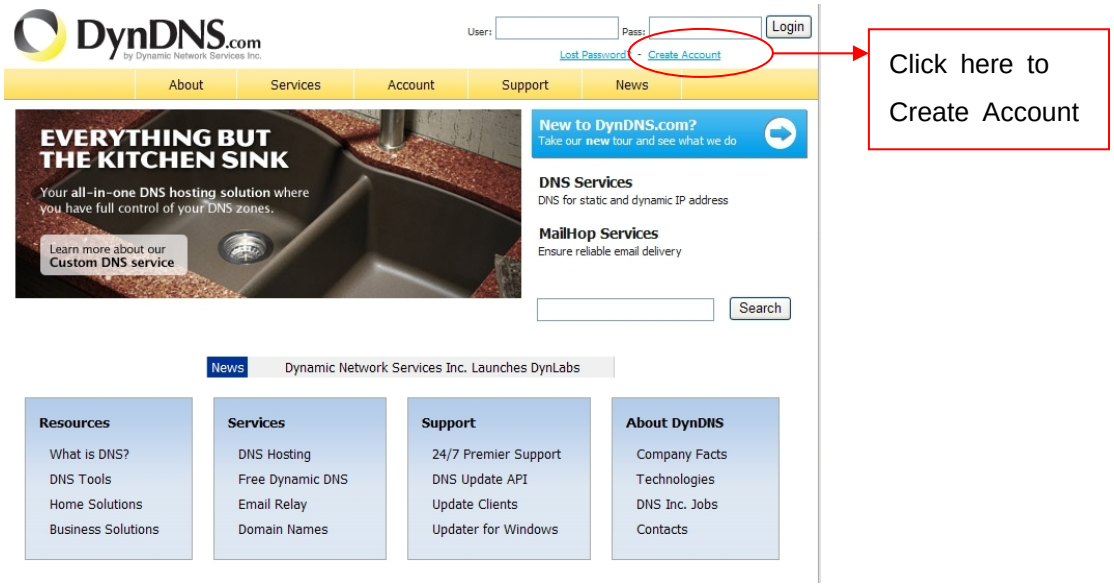
Main controls – Search & Playback

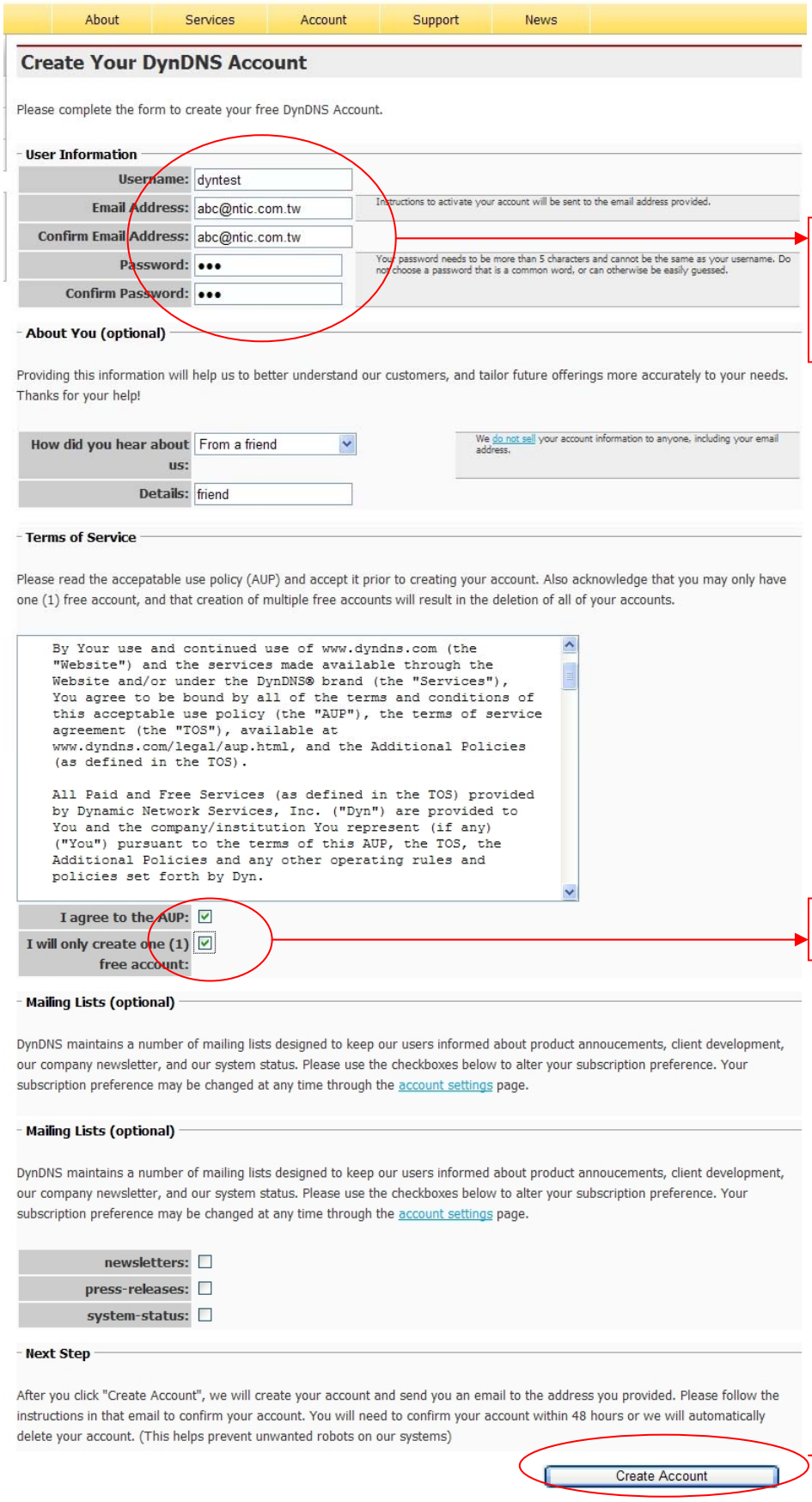
No	Name	Description
1	**DATE & TIME**	Displays the current date and time.
2	**Connect/Disconnect**	Connect / Disconnect to the DVR
3	**LIVE**	Switch to Live mode.
4	**BACKUP / CAPTURE**	Capture or backup the image from playback.
5	**PLAYBACK BUTTONS**	Control playback's image
6	**SEARCH CALENDAR**	Select the data and time for playback

APPENDIX 1

1. Registering DDNS in Dyndns.com

a.Please register your ddns host in website (http://www.dyndns.com),

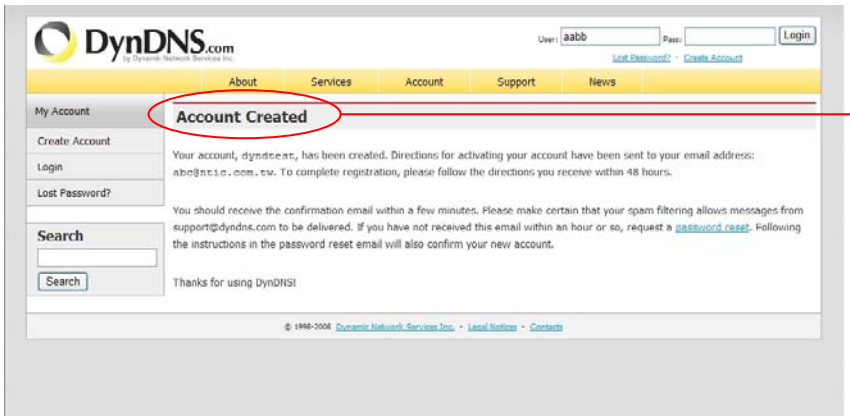



About
Services
Account
Support
News
Create Your DynDNS Account
Please complete the form to create your free DynDNS Account.
User Information
Username: dyntest
Email Address: abc@ntic.com.tw
Instructions to activate your account will be sent to the email address provided.
Confirm Email Address: abc@ntic.com.tw
Password: ●●●
Your password needs to be more than 5 characters and cannot be the same as your username. Do not choose a password that is a common word, or can otherwise be easily guessed.
Confirm Password: ●●●
About You (optional)
Providing this information will help us to better understand our customers, and tailor future offerings more accurately to your needs. Thanks for your help!
How did you hear about us: From a friend
We do not sell your account information to anyone, including your email address.
Details: friend
Terms of Service
Please read the accepatable use policy (AUP) and accept it prior to creating your account. Also acknowledge that you may only have one (1) free account, and that creation of multiple free accounts will result in the deletion of all of your accounts.
By Your use and continued use of www.dyndns.com (the "Website") and the services made available through the Website and/or under the DynDNS® brand (the "Services"), You agree to be bound by all of the terms and conditions of this acceptable use policy (the "AUP"), the terms of service agreement (the "TOS"), available at www.dyndns.com/legal/aup.html, and the Additional Policies (as defined in the TOS).
All Paid and Free Services (as defined in the TOS) provided by Dynamic Network Services, Inc. ("Dyn") are provided to You and the company/institution You represent (if any) ("You") pursuant to the terms of this AUP, the TOS, the Additional Policies and any other operating rules and policies set forth by Dyn.
I agree to the AUP:
I will only create one (1) free account:
Mailing Lists (optional)
DynDNS maintains a number of mailing lists designed to keep our users informed about product annoucements, client development, our company newsletter, and our system status. Please use the checkboxes below to alter your subscription preference. Your subscription preference may be changed at any time through the account settings page.
Mailing Lists (optional)
DynDNS maintains a number of mailing lists designed to keep our users informed about product annoucements, client development, our company newsletter, and our system status. Please use the checkboxes below to alter your subscription preference. Your subscription preference may be changed at any time through the account settings page.
newsletters:
press-releases:
system-status:
Next Step
After you click "Create Account", we will create your account and send you an email to the address you provided. Please follow the instructions in that email to confirm your account. You will need to confirm your account within 48 hours or we will automatically delete your account. (This helps prevent unwanted robots on our systems)
Create Account

Key in your user Name and password to log in your Dyndns

Tick the checkbox

Create Account


DynDNS.com
User: aabb
Pass:
Login
Lost Password? - Create Account
About
Services
Account
Support
News
My Account
Create Account
Login
Lost Password?
Search
Search
Account Created
Your account, dyndnsat, has been created. Directions for activating your account have been sent to your email address: abc@nnic.com.tw. To complete registration, please follow the directions you receive within 48 hours.
You should receive the confirmation email within a few minutes. Please make certain that your spam filtering allows messages from support@dyndns.com to be delivered. If you have not received this email within an hour or so, request a password reset. Following the instructions in the password reset email will also confirm your new account.
Thanks for using DynDNS!
© 1998-2008 Dynamic Network Services Inc. - Legal Notices - Contacts

You will see this confirmation page

b. Check your E-main,then you will find a link as follow:

Your DynDNS Account 'dyndtest' has been created. You need to visit the confirmation address below within 48 hours to complete the account creation process:

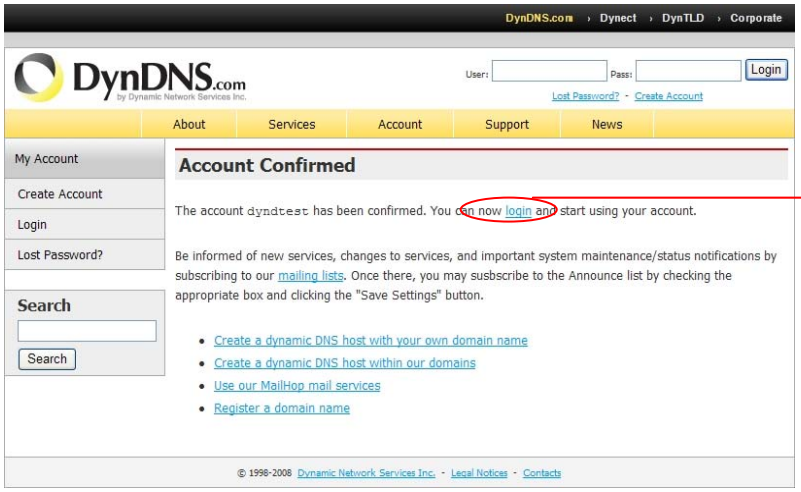
https://www.dyndns.com/account/confirm/Spwn7yUgskorCZUS9qk6Vg

Click this link to confirmation

Our basic service offerings are free, but they are supported by our paid services. See http://www.dyndns.com/services/ for a full listing of all of our available services.

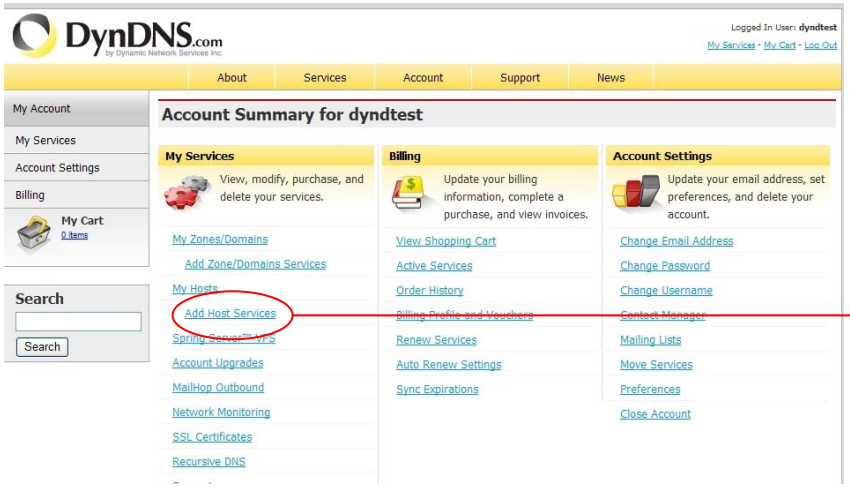
If you did not sign up for this account, this will be the only communication you will receive. All non-confirmed accounts are automatically deleted after 48 hours, and no addresses are kept on file. We apologize for any inconvenience this correspondence may have caused, and we assure you that it was only sent at the request of someone visiting our site requesting an account.

Sincerely,
The DynDNS Team
Dynamic Network Services Inc.

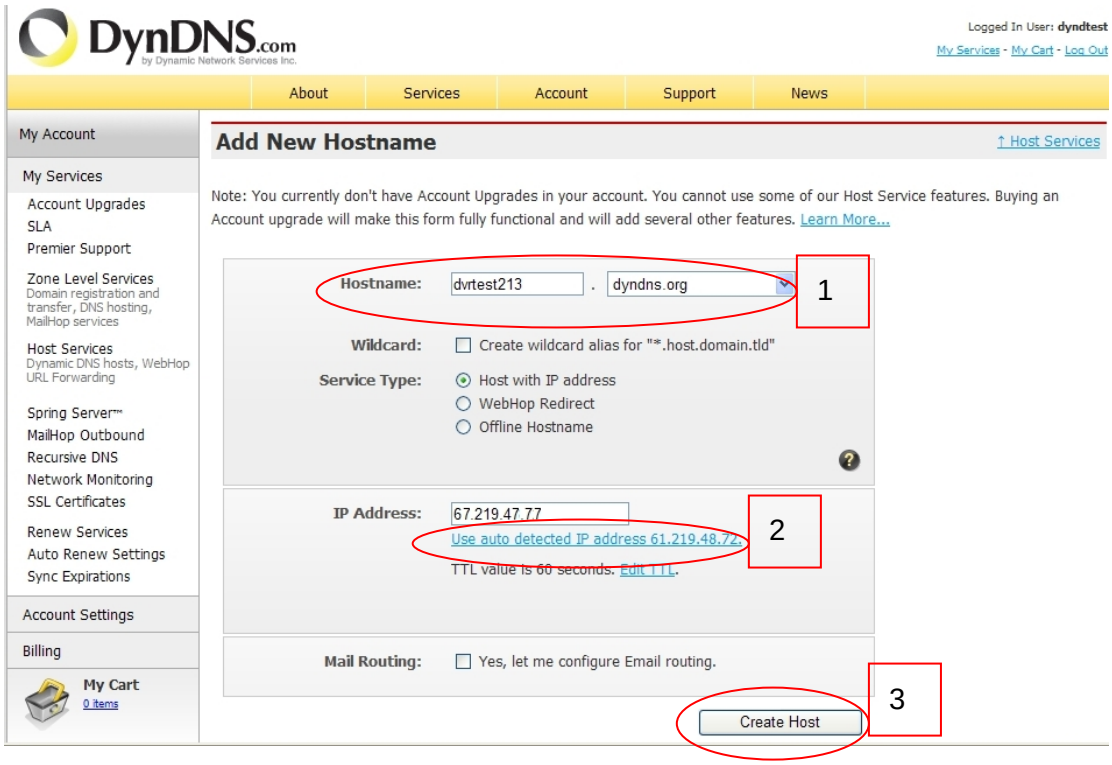

DynDNS.com › Dynect › DynTLD › Corporate
DynDNS.com
User:
Pass:
Login
Lost Password? - Create Account
About
Services
Account
Support
News
My Account
Create Account
Login
Lost Password?
Search
Search
Account Confirmed
The account dyndtest has been confirmed. You can now login and start using your account.
Be informed of new services, changes to services, and important system maintenance/status notifications by subscribing to our mailing lists. Once there, you may susbscribe to the Announce list by checking the appropriate box and clicking the "Save Settings" button.
Create a dynamic DNS host with your own domain name
Create a dynamic DNS host within our domains
Use our MailHop mail services
Register a domain name
© 1998-2008 Dynamic Network Services Inc. - Legal Notices - Contacts

Click Login

C. Add host name



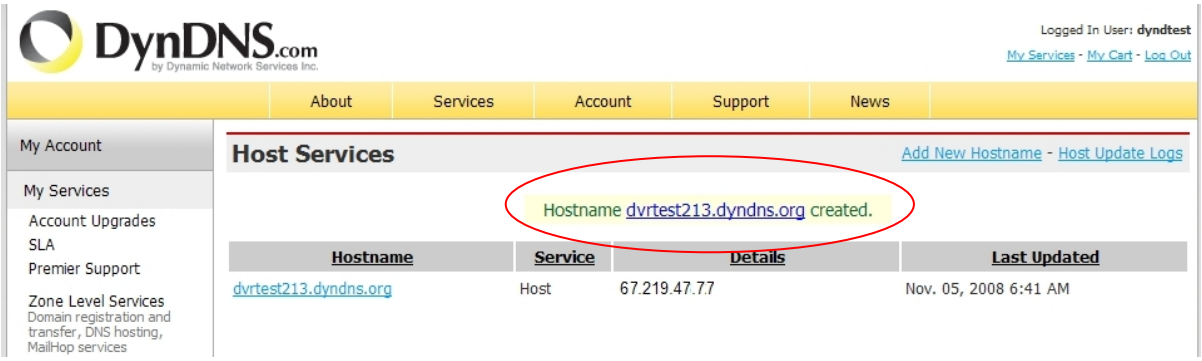
Click “Add Host Services” to add a HOST name



1) Key in your preferred name of your Hostname. It can be difference from your Dyndns account user name. We recommend to use the 'dyndns.org' as extension.

2) Click on the 'Use auto detected IP address XX.XX.XXX.XXX' and you will see your WAN IP appear in the column.

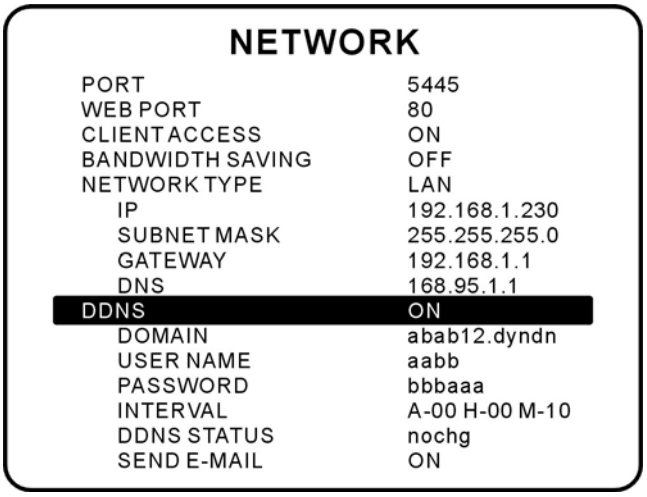
3) Click on the 'Create Host' button to proceed to next step.



Your Hostname 'XXXXXX.dyndns.org' had been successful created

2 DDNS Settings

A. Please go to SETUP>NETWORK.



B. Please set DDNS as ON.

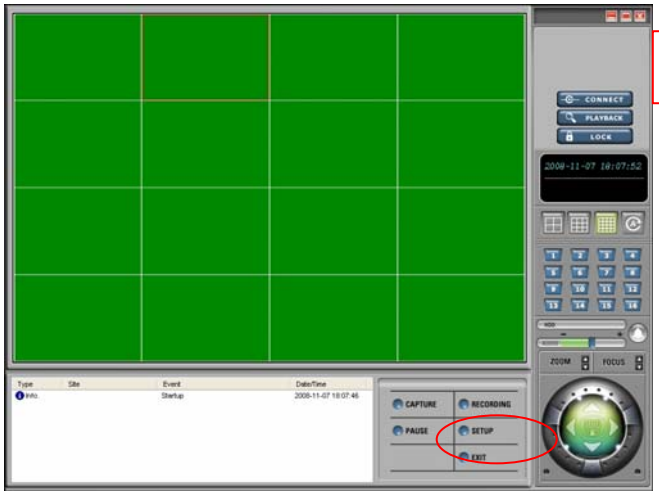
DOMAIN: Input domain name you register in dyndns web page (for example: abab12.dyndns.org)

USER NAME/PASSWORD: Same as register in dyndns web page

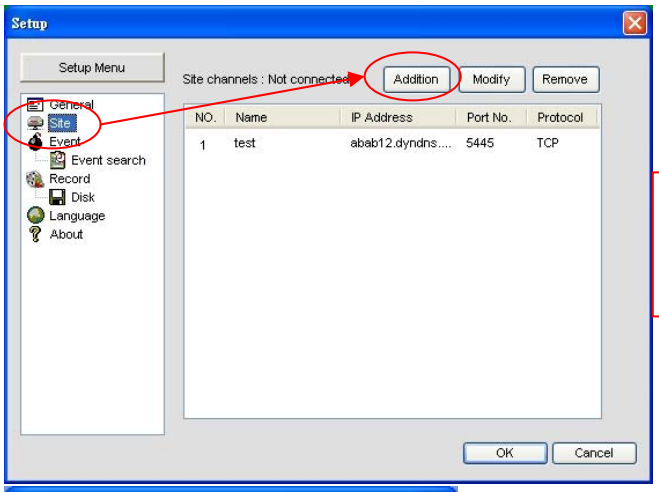
INTERVAL: Every 10 minute will update IP address

DDNS STATUS: show dyndns IP address status

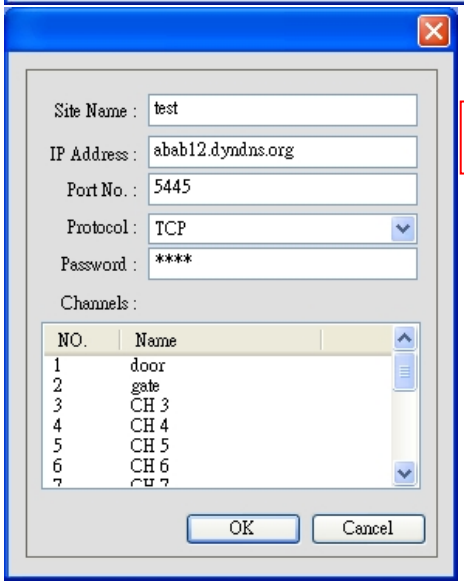
3.Connection over Remote Software or IE Browser



A.open remote software,then Click “SETUP”

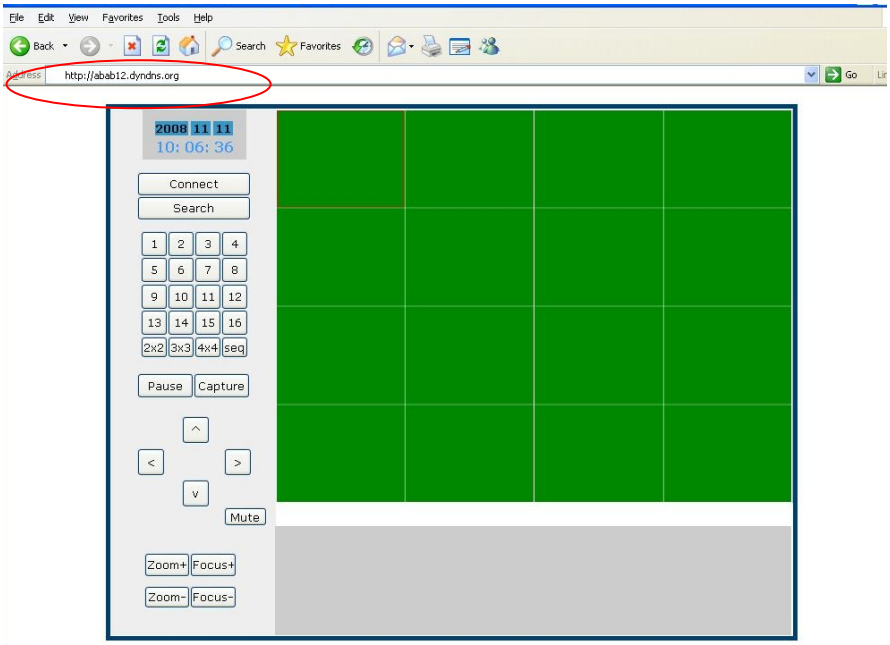


B. Click “Site” then select “Addition” to register a site



C. Enter the Port no, Protocol and Password in each filed.

1. In IE Browser,just input domain name in IE address field



APPENDIX 2 HDD Compatiable Table

	Model Name	Capacity	Buffer
HITACHI	HDS728080PLAT20	80 GB	2 M
	HDS721680PLAT80	80 GB	8 M
	HDT722516DLAT80	160 GB	8 M
	HDS722516DLAT80	160 GB	8 M
	HDT722525DLAT80	250 GB	8 M
	HDT725025VLAT80	250 GB	8 M
	HDS722525VLAT80	250 GB	8 M
	HDT725032VLAT80	320 GB	8 M
	HDP725050GLAT80	500 GB	8 M
	HDS725050KLAT80	500 GB	8 M
	HDP72505DGLA360	500GB	16M
	HDS721010KLA330	1TB	32MB
MAXTOR	6Y080L0	80 GB	2 M
	6B160P0	160 GB	2 M
	6Y200P0	250 GB	8 M
	6L300R0	300 GB	16 M
SAMSUNG	SP0822N	80 GB	2 M
	SP1604N	160 GB	2 M
	SP2514N/OMD	250 GB	8 M
	HD300LD	300 GB	8 M
WesternDigital	WD1600BB-22GUA0	160 GB	2 M
	WD2000BB-00GUA0	200 GB	8 M
	WD2500BB-00KEA0	250 GB	8 M
	WD2500JB	250 GB	8 M
	WD2500AAKS	250GB	16M
	WD10EACS	1TB	16M
Seagate	ST3800-12ACE	80 GB	2 M
	ST31200-25ACE	120 GB	2 M
	ST3160815AS(Barracuda)	160 GB	8 M
	ST3160815AV	160 GB	8 M
	ST3250820AV(Surveillance)	250 GB	8 M
	ST3250820ACE(Barracuda)	250 GB	8 M

	ST3250410AS(Barracuda)	250 GB	16 M
	ST3300831ACE	300 GB	8 M
	ST3300820ACE	300 GB	8 M
	ST3300831ACE	300 GB	16 M
	ST3400832ACE	400 GB	8 M
	ST3400820ACE	400 GB	8 M
	ST3400620A	400 GB	16 M
	ST3500630AV(Surveillance)	500 GB	16 M
	ST3500630A	500 GB	16 M
	HDS725050KLAT80	500 GB	8 M
	ST3750840ACE	750 GB	8 M
	ST3750640A	750 GB	16 M
	ST31000340SV	1TB	32M